Cooperstown Road over Rydberg Creek Bridge (No. 38C0257) Replacement Project

Initial Study/Mitigated Negative Declaration
Public Draft

June 5, 2024

Prepared for:
Stanislaus County Public Works Department
1716 Morgan Road,
Modesto, CA 95358

Prepared by:
Stantec Consulting Services Inc.
376 Hartnell Avenue, Suite B
Redding, California 96002

STN #2272010000

Proposed Mitigated Negative Declaration
Pursuant to: Division 13, Public Resources Code

PROJECT DESCRIPTION

Stanislaus County Public Works Department (County), in coordination with the California Department of Transportation, is proposing to replace the existing Rydberg Creek Bridge (No. 38C0257) on Cooperstown Road with a two-lane bridge structure to provide improved safety and operations (project). The bridge replacement would include a cast-in-place, two-lane, single span, reinforced concrete, box girder bridge that would be constructed on the existing alignment. A temporary detour would be approximately 15 feet wide and would be located just south of Cooperstown Road.

DETERMINATION

This proposed Mitigated Negative Declaration (MND) is included to give notice to interested agencies and the public that it is the County's intent to adopt an MND for this project.

The County has prepared an Initial Study for this project and has determined from this study that the project would not have a significant impact on the environment for the following reasons:

The project would have no impact on energy, land use and planning, mineral resources, population and housing, public services, recreation, nor tribal cultural resources.

The project would have a less-than-significant impact on aesthetics, agriculture and forest resources, greenhouse gas emissions, hydrology and water quality, noise, transportation and traffic, utilities and service systems, and wildlife.

The project would have a less-than-significant impact with mitigation incorporated on air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, and mandatory findings of significance.

6-5-2024

Chuck Covolo, P.E., Project Manager — Date
Stanislaus County Public Works Department

Project Information

1. Project Title:	Cooperstown Road over Rydberg Creek Bridge (No. 38C0257) Replacement Project
2. Lead Agency Name and Address	Stanislaus County Public Works Department 1716 Morgan Road, Modesto, CA 95358
3. Contact Person, Phone Number/Email	Chuck Covolo, P.E., Project Manager (209) 525-4101 mailto:covoloc@stancounty.com
4. Project Location	Approximately 4.9 miles northwest of La Grange, Stanislaus County, California; Section 34 of Township 2S, Range 13E on the *Cooperstown, California* 7.5-minute U.S. Geological Survey quadrangle; Assessor Parcel Number: 011-012-010-000.
5. Project Sponsor's Name	Stanislaus County Public Works Department
6. General Plan Designation	Agriculture (AG)
7. Zoning	A-2-40 (General Agriculture, 40-acre parcels)

8. Description of Project

The Stanislaus County Public Works Department (County) proposes to improve public safety by replacing Rydberg Creek Bridge (No. 38C0257) on Cooperstown Road with a new two-lane bridge in the same location as the existing bridge. The project would be federally funded through the Federal Highway Bridge Program, which is administered by the California Department of Transportation (Caltrans) on behalf of the Federal Highway Administration. Caltrans is responsible for federal oversight of the project, which would be locally administered by the County. The existing bridge is owned and maintained by the County.

The proposed new bridge would be a 92-foot long by 28-foot wide, cast-in-place, two-lane, single span, reinforced concrete, box girder bridge that would be constructed on the existing alignment. The soffit of the new bridge would provide at least 6.5 feet of freeboard over the 100-year stormwater surface elevation. The new roadway profile would need to be raised approximately 4 feet to improve existing non-standard sight distance. Rock slope protection would be placed at both abutment embankments as a scour countermeasure. The bridge would include Type 85 concrete barrier railings and would be approximately 28 feet wide with the railing. The project would include road improvements designed with an unpaved roadway width of 24 feet (two 10-foot lanes and two 2-foot shoulders) to meet American Association of State Highway and Transportation Officials Standards. The project would be aligned within the existing Stanislaus County right-of-way for Cooperstown Road, but construction would encroach onto neighboring private land. Due to the low average daily trips and long detour distance on County roads (approximately 20 miles), the bridge would be closed during construction while traffic would use a temporary detour adjacent to the existing Cooperstown Road. This temporary detour would be approximately 15 feet wide and would be located just south of Cooperstown Road. Traffic would cross Rydberg Creek via a low-water crossing because the creek is dry for several months during the summer.

The low-water crossing would be constructed by laying a temporary pipe atop the creek bed perpendicular to the road and covering it with clean crushed rock. The pipe and rock used for the temporary crossing would be removed at the end of construction. The existing bridge would be demolished and removed from the project area as construction progresses.

9. Surrounding Land Uses and Setting

Rydberg Creek begins in the Sierra Nevada foothills northeast of the project site and is part of the larger Dry Creek watershed that feeds into the Tuolumne River near Modesto. The area is characterized by low rolling hills covered largely by annual grasslands. Land uses in the area include ranchlands, agriculture, and rural residential developments.

10. Other Public Agencies Whose Approval May Be Required (e.g., permits, financing approval, or participation agreement.)

- Federal Highway Administration
- California Department of Transportation, District 10 (funding authorization; NEPA approval)
- U.S. Army Corp of Engineers, Sacramento District (Clean Water Act Section 404 Nationwide Permit)
- U.S. Fish and Wildlife Service, Sacramento Fish And Wildlife Office (Endangered Species Act compliance)
- California Department of Fish & Wildlife, Region 4 (Streambed Alteration Agreement)
- Central Valley Regional Water Quality Control Board (Clean Water Act Section 401 Water Quality Certification and Section 402 General Construction Activity Storm Water Permit)

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

In accordance with Public Resources Code sections 5024.1, 5097.94, 21074, and 21080.3, commonly known as Assembly Bill 52, the County sent notification letters and a map via mail and email to the Native American tribes who may have knowledge of cultural resources in the area of potential effect on four separate occasions: April 5, 2013; October 30, 2019; July 22, 2022; and March 8, 2023. The following tribes were contacted based on a list of tribes provided by the Native American Heritage Commission: Calaveras Band of Mi-Wuk Indians, California Valley Miwok Tribe, North Valley Yokuts Tribe, Southern Sierra Valley Miwuk Nation, Tule River Indian Tribe, and Tuolumne Band of Me-Wuk. Follow-up phone calls were made to tribal representatives. Two tribes asked to be kept informed of the project, requested copies of final documents, and asked to be notified if human remains are found during project construction.

Table of Contents

LIST OF TABLES

LIST OF FIGURES

Acronyms and Abbreviations

°F	degrees Fahrenheit
ADT	average daily traffic
ADI	area of direct impact
BA	Biological Assessment
BMP	Best Management Practice
BSA	biological study area
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
County	Stanislaus County Public Works Department
CWA	Clean Water Act
dBA	A-weighted decibels
DOC	Department of Conservation
DTSC	Department of Toxic Substances Control
ESA	environmentally sensitive area
GHG	greenhouse gas
IS	Initial Study
ISA	Initial Site Assessment
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NOA	naturally occurring asbestos
PM_{10}	particulate matter 10 microns or less
$PM_{2.5}$	particulate matter 2.5 microns or less
project	Cooperstown Road over Rydberg Creek Bridge (No. 38C0257) Replacement Project
PRC	Public Resources Code
REC	recognized environmental condition
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SJVAPCD	San Joaquin Valley Air Pollution Control District
SWPPP	Stormwater Pollution Prevention Plan
SSC	species of special concern
USACE	U.S. Army Corps of Engineers
WSE	Water Surface Elevation

1. INTRODUCTION

1.1 Introduction and Regulatory Guidance

This document is an Initial Study (IS) that summarizes the technical studies prepared for the proposed Cooperstown Road over Rydberg Creek Bridge (No. 38C0257) Replacement Project (project). It includes an evaluation of potential environmental impacts that could result from project implementation and provides justification for a Mitigated Negative Declaration (MND) for the project. This document was prepared in accordance with the current California Environmental Quality Act (CEQA), Public Resources Code (PRC) section 21000 et seq., and the State CEQA Guidelines (14 California Code of Regulations 1500 et seq.) that require all state and local agencies to consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. Conservation measures and mitigation measures are proposed to avoid or minimize any significant impacts that are identified.

1.2 Lead Agency

The Lead Agency is the public agency with primary responsibility for implementing or approving a project. The Stanislaus County Public Works Department (County) is the CEQA Lead Agency. The project would receive funding through federal and state sources and would require approvals from the Federal Highway Administration and the California Department of Transportation (Caltrans). The Federal Highway Administration has designated Caltrans as the National Environmental Policy Act (NEPA) Lead Agency on its behalf. Caltrans issued NEPA approval via a Categorical Exclusion supported by technical studies on May 23, 2024.

1.3 Supporting Technical Studies

Supporting technical studies conducted for this project are available to the public upon request (with the exception of the cultural resources reports) and include the following:

- Archaeological Survey Report/Historic Property Survey Report; Historic Resources Evaluation Report; Archaeological Evaluation Report; Environmentally Sensitive Area Action Plan; and Finding of No Adverse Effect Document *(These reports are confidential and available to qualified readers only.)*
- Biological Assessment
- Community Impact Assessment
- Delineation of Potential Waters of the U.S.
- Foundation Report
- Initial Site Assessment
- Natural Environment Study
- Preliminary Hydraulic Study
- Visual Resources Impact Assessment Memorandum
- Water Quality Technical Memorandum

The technical studies are available for review at the County office. Please contact:

Chuck Covolo, P.E., Project Manager
Stanislaus County Public Works Department
1716 Morgan Road, Modesto, CA 95358
Phone: (209) 525-4101

1.4 Document Organization

This IS consists of the following chapters:

- **Chapter 1 – Introduction** describes the purpose and content of this document.
- **Chapter 2 – Project Description** provides a comprehensive description of the project, tentative schedule, required permit approvals, and project alternatives.
- **Chapter 3 – Environmental Impacts and Mitigation Measures** describes the environmental impacts of the project using the CEQA Environmental Checklist. Where appropriate, mitigation measures are provided that would reduce potentially significant impacts to a less-than-significant impact.
- **Chapter 4 – Determination** provides the environmental determination for the project.
- **Chapter 5 – Mitigation Monitoring and Reporting Program** provides a comprehensive list of all conservation measures and project-specific mitigation measures proposed for the project, along with timing/implementation, enforcement responsibility, and monitoring responsibility.
- **Chapter 6 – Report Preparation** identifies the individuals responsible for preparation of this document.
- **Chapter 7 – References** provides a list of references used to prepare this document.

2. PROJECT DESCRIPTION

2.1 Location

The Cooperstown Road over Rydberg Creek Bridge (No. 38C0257) Replacement Project (project) is located approximately 4.9 miles northwest of the unincorporated community of La Grange, in eastern Stanislaus County, California. The project study area encompasses 9.44 acres, extending approximately 1,200 feet along Cooperstown Road, as shown on the *Cooperstown, California* 7.5-minute U.S. Geological Survey quadrangle in Township 2S, Range 13E, Section 34. The approximate center of the study area is located at latitude 37.718781, longitude -120.520241 (North American Datum 83) (Figure 1).

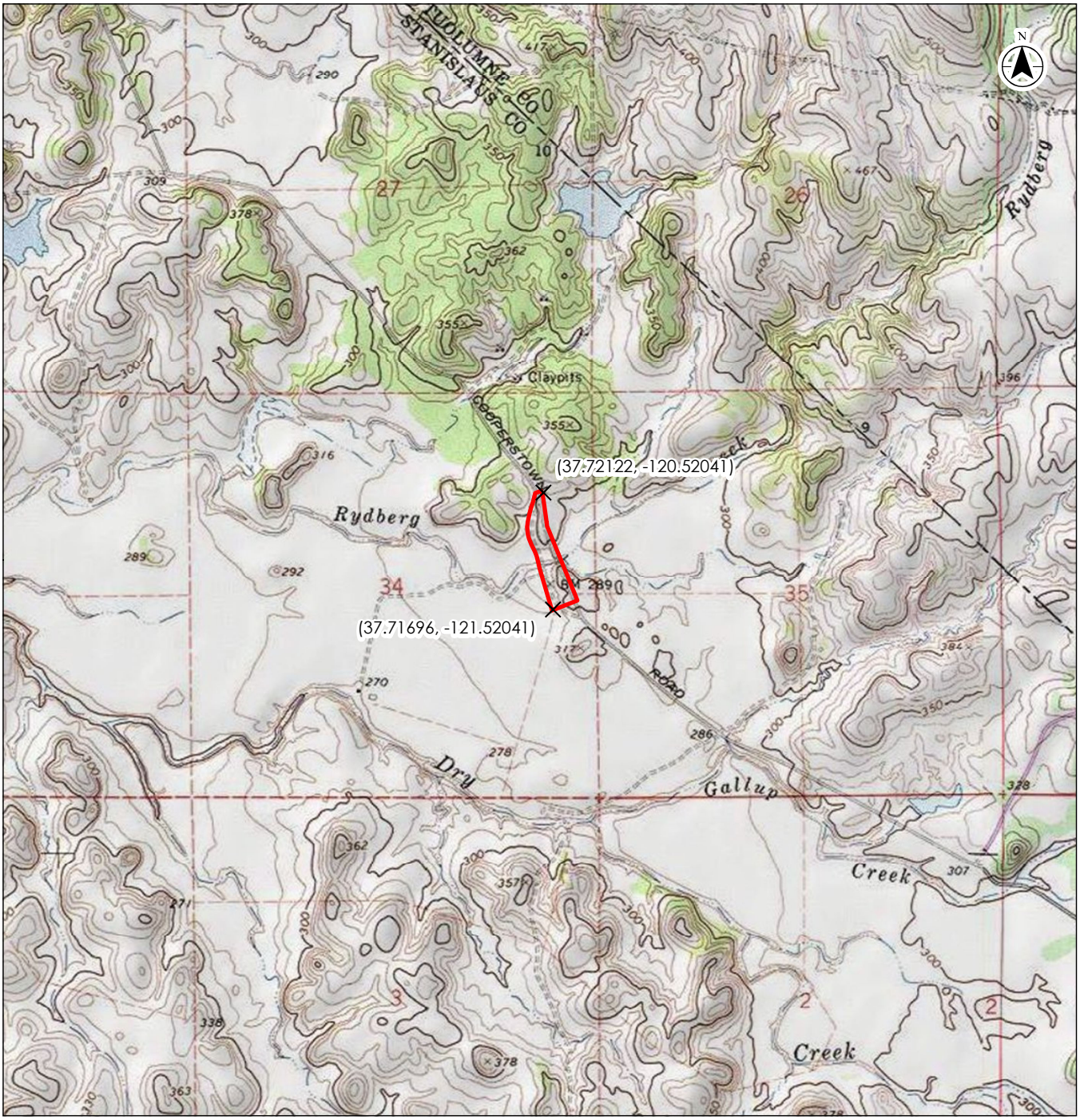
2.2 Existing Facility Conditions

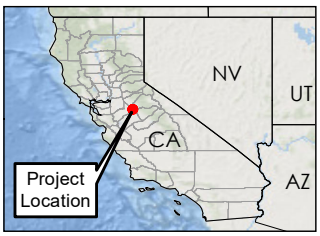
Cooperstown Road is classified as an Off-System Local Road by Caltrans. The Rydberg Creek Bridge (38C0257) on Cooperstown Road was built in 1920 and is approximately 60 feet long by 22 feet wide with a clear width of 19.7 feet, which is a non-standard width. The existing bridge consists of a three-span, continuous reinforced concrete “T”-Beam structure supported by three column piers founded on spread footings. The Caltrans Inspection Report classifies the bridge as “Structurally Deficient.” The bridge is also deemed to be scour critical with a history of scour issues that have undermined the footing of Bent 3 resulting in a failed column and the closure of a traffic lane. The current average daily traffic (ADT) is about 50 vehicles per day with a future ADT of 105 (projected to year 2035). The design speed for the proposed bridge would remain at the current 35 miles per hour.

2.3 Project Purpose and Need

The purpose of this project is to improve public safety by providing a safe crossing of Rydberg Creek for the public by replacing the existing, functionally obsolete, and reduced load capacity bridge with a structure that meets current acceptable standards. The existing single-lane bridge is too narrow for the daily traffic volumes plus pedestrian usage. The bridge barriers do not meet current safety standards. The latest Caltrans Inspection Report classified the bridge as “Structurally Deficient” with a Sufficiency Rating of 51.1. This only makes the bridge eligible for rehabilitation; however, replacement justification was provided to Caltrans. The bridge replacement was approved due to the bridge’s age, deteriorating condition, classification as scour critical, and the undermined footing of Bent 3 which resulted in a failed column and the closure of a traffic lane. Also, by raising the roadway profile, the substandard sight distance can be corrected.

V:\1857\Active\2272010000\07_historical\gis_cad\GIS\Working_MXDs\tm_working_folder\wd\2272010000_wd_fig1_location.mxd Revised: 2020-05-21 By: Dalaw





Study Area (9.44 Acres)

Map Reference Point

0 1,000 2,000 Feet

1:24,000 (at original document size of 8.5x11)

Stantec

Project Location
Stanislaus County, CA

2272010000
Updated by D. Law on 2020-05-21
Public Land Survey:T02S, R13E, S34 Technical Review by N. Eide on 2020-05-21
USGS 7.5 Quadrangle: Cooperstown Independent Review by C. Femino on 2020-05-21

Client/Project

Cooperstown Road over Ryberg Creek Bridge
(No. 38C0257) Replacement Project

Figure No.
1

Title
Project Location

Notes
1. Coordinate System: GCS WGS 1984
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2013.
3. Orthoimagery © First Base Solutions, 20xx.

2.4 Proposed Project

REPLACEMENT OF EXISTING STRUCTURE

The project involves replacing the existing Rydberg Creek Bridge (No. 38C0257) on Cooperstown Road. The new bridge would be a single span, cast-in-place, reinforced concrete, box girder bridge. It would be 92 feet long by 28 feet wide with a clear width of 24 feet (i.e., two 10-foot lanes and 2-foot-wide shoulders on each side) to meet the American Association of State Highway and Transportation Officials Standards. Type 85 concrete barrier railings would be installed on each side of the bridge. The box girder bridge would be supported on two abutments and would span the active channel. Rock slope protection would be placed around the abutment embankments to prevent scour. Cast-in-drilled-hole piles would be used for the foundation. The bottom of the abutment footings would be approximately 15 feet below the original ground elevation. The soffit of the new bridge would provide at least 6.5 feet of freeboard over the 100-year storm water surface elevation of Rydberg Creek. The roadway would remain unpaved, but the approaches to the bridge would be widened to match the 24-foot bridge width. To improve the existing non-standard sight distance, the bridge profile would be raised approximately 4 feet.

The new bridge and approaches would expand the existing County right-of-way (ROW) by approximately 15 feet on either side of the road for about 600 feet along Cooperstown Road. Construction would also encroach onto neighboring private land (APN 011-012-010), requiring temporary easements as discussed below.

Construction activities would generally involve:

- Establishment of environmentally sensitive areas (ESAs) and staging areas
- Site clearing, preparation, and earthwork
- Installation of a temporary low-water crossing
- Removal of the existing bridge
- Construction of new bridge foundations, abutments, deck, and guardrails
- Modification of the bridge approaches along Cooperstown Road
- Sign installation
- Revegetation of disturbed areas

No designated disposal or borrow sites would be required to complete the project. All construction debris, including wash water and removed paint, would be disposed of per state and county codes.

Demolition of the existing bridge will be performed in accordance with the Caltrans Standard Specifications modified to meet environmental permit requirements. All concrete and other debris resulting from the demolition of the existing bridge would be removed from the project site and disposed of by the contractor. The construction contractor would be responsible for preparing a bridge demolition plan that conforms to the permit requirements.

A small dozer would be used to grade the staging area and access to the creek. A backhoe and/or bobcat would be used to remove debris and material. Concrete trucks and long-reach concrete pump trucks would be used for the new bridge construction. Other equipment may include light trucks, man-lifts, generators, hoe ram, jackhammers, saw-cut machines, crane, and drill rig.

RIGHT-OF-WAY

The alignment for the new bridge and roadway approaches would follow the existing alignment, but with minor, temporary encroachments requiring construction easements on both sides of the bridge. The new bridge and approaches would require the expansion of the existing Stanislaus County ROW by approximately 15 feet on either side of the road for about 600 feet along Cooperstown Road. Construction access and the temporary detour would also encroach onto one neighboring private land parcel (APN 011-012-010-000), requiring temporary easements. Close coordination with the private property owners would be conducted to provide access during construction.

UTILITIES

No utility relocations are anticipated for the project.

OTHER CONSTRUCTION ACTIVITIES

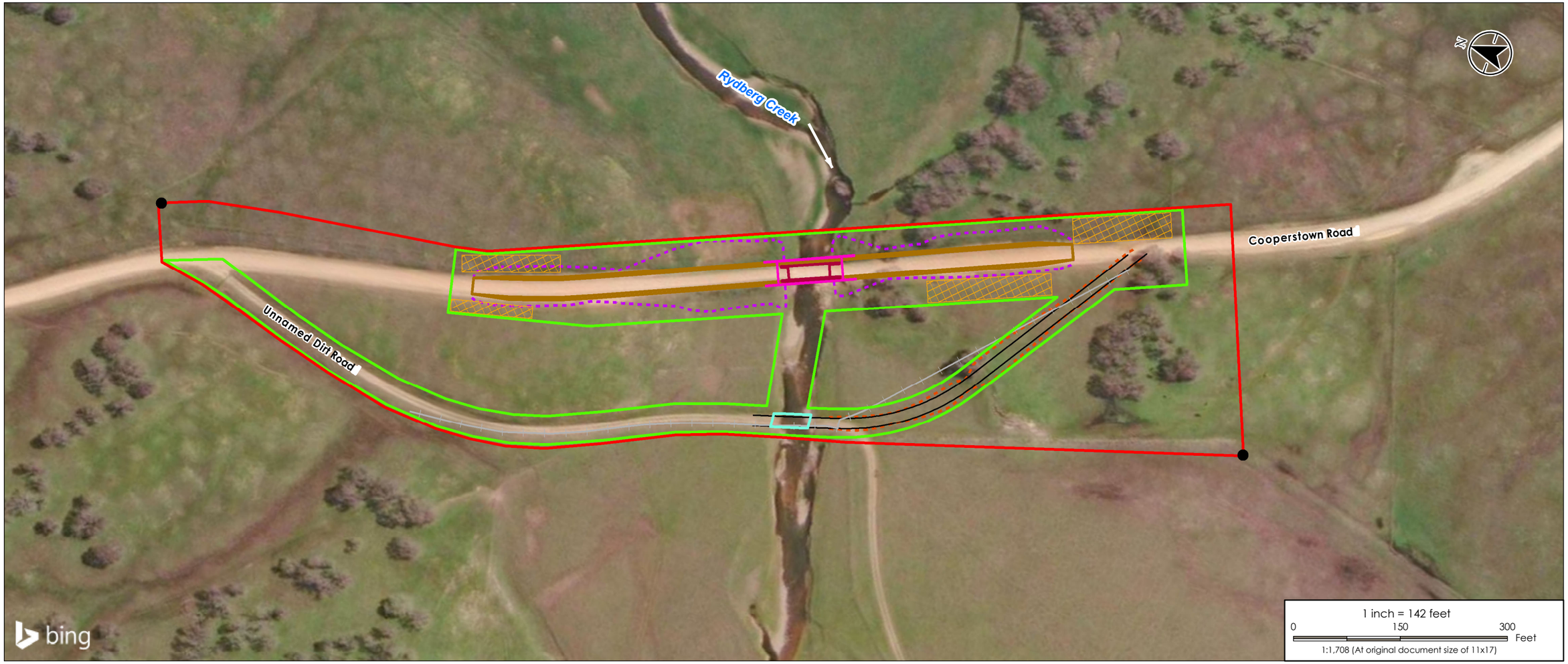
Temporary Detour

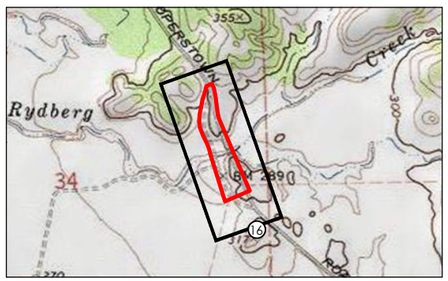
Due to the low ADTs and long detour distance on County roads (approximately 20 miles), the bridge would be closed during construction while traffic would use a temporary detour adjacent to the existing Cooperstown Road. This temporary detour would be approximately 15 feet wide and would be located just south of Cooperstown Road. Traffic would cross Rydberg Creek via a low-water crossing because the creek is dry for several months during the summer. The low-water crossing would be constructed by laying a temporary pipe atop the creek bed perpendicular to the road and covering it with clean crushed rock. The pipe and rock used for the temporary crossing would be removed at the end of construction. The existing bridge would be demolished and removed from the project area as construction progresses.

Construction Access and Contractor Staging

Four staging areas are proposed. These staging areas would be located adjacent to Cooperstown Road, with two staging areas north of the road and two staging areas south of the road (i.e., two on each side of the bridge) (Figure 2). Each staging area would encompass approximately 0.1 acre. Portions of the staging areas would extend onto adjacent private land, and the County would coordinate with the landowner to secure a temporary construction easement for staging activities.

Cooperstown Road would serve as the primary access to the work area and staging areas. Contractors would also use the temporary detour to move vehicles and equipment from one side of the bridge to the other once the bridge is removed. If needed, contractors would drive construction vehicles and equipment up the creek bed from the detour road to access the construction site from ground level. To protect bedrock mortars documented along the creek from damage during construction, the mortars would be identified on construction plans as ESAs, and no equipment or vehicle access would be allowed on the bedrock mortars. During bridge removal, the bedrock mortars directly beneath the bridge would be covered with protective materials to protect them from damage.





Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2013.
3. Orthoimagery © First Base Solutions, 20xx.

- Action Area (9.44 acres)
- Area of Direct Impact
- Existing Bridge
- Potential Staging Area
- Low Water Crossing
- New Bridge (Permanent)
- Roadway (Permanent/Existing)
- Cut/Fill Limit (Permanent)
- Path (Temporary)
- Cut/Fill Limit (Temporary)
- Fence (Existing)

Stantec

Project Location
Stanislaus County, CA

2272010000
Prepared by L. Morris on 2019-01-15
Technical C. Femino by on 2019-01-XX
Independent Review by N.Eide on 2019-01-XX

Client/Project
Cooperstown Road over Ryberg Creek
Bridge (No. 38C0257) Replacement Project

Figure No.
Figure 2

Title
Action Area and Project Design

Notes:
1. Detailed topographic contour data unavailable

V:\2272\active\2272010000\07.historical\gis_cad\GIS Working_MXDs\m_working_folder\bio\draft_2272010000_ba_fig2_project_design.mxd Revised: 2019-01-15 By: lmorris

Site Considerations

During construction, the area of vegetation clearing would be minimized and would be confined to the project footprint, including grading locations, construction access roads, and staging areas. No tree removal would be required. ESAs would be flagged and designated to prevent impact by construction activities. All ESAs would be avoided by all construction activities, material, and personnel. After construction is complete, creek bank, access roads, staging area, and any other disturbed areas would be restored to preconstruction conditions.

Sequencing

The general construction activities would include establishment of staging areas, establishment of the temporary detour (including placement of the pipe and rock in Rydberg Creek), removal of the existing bridge, installation of the new bridge, improvements to the roadway, placement of rock slope protection, removal of the temporary detour, and restoration of disturbed areas.

2.5 Conservation Measures

The following conservation measures would be followed during project construction to avoid or minimize potential environmental impacts.

CONSERVATION MEASURE #1: EROSION AND SEDIMENTATION CONTROL

Erosion control measures will be implemented during construction of the project. These measures will conform to the provisions in Section 21 of the Caltrans Standard Specifications and the special provisions included in the contract for the project. Such provisions include the preparation of a Storm Water Pollution Prevention Plan or Water Pollution Control Program depending on the size of the area of disturbance. These plans would describe and illustrate the use of best management practices to be implemented at the project site.

Erosion control measures to be included in the Storm Water Pollution Prevention Plan, Water Pollution Control Program, or to be implemented by the County include the following:

- To the extent practicable, activities that increase the erosion potential will be restricted to the relatively dry summer and early fall period to minimize the potential for rainfall events to transport sediment to surface water features. If these activities must take place during the late fall, winter, or spring, then temporary erosion and sediment control structures will be in place and operational at the end of each construction day and will be maintained until permanent erosion control structures are in place.

- Vegetation clearing and ground-disturbing activity will be limited to the minimum area necessary for project implementation.

- Areas where woody vegetation needs to be removed will be identified in advance of ground disturbance and will be limited to only those areas that have been approved by the County. Within 10 days of completion of construction in those areas, weed-free mulch will be applied to disturbed areas to reduce the potential for short-term erosion. Prior to a rain event, or when weather forecasts by the National Weather Service indicate a greater than 50 percent possibility of rain

within the next 24 hours, weed-free mulch will be applied to all exposed areas at the completion of the day's activities. Soils will not be left exposed during the rainy season.

- Suitable structures, such as silt fences, straw wattles, or catch basins, will be placed below all construction activities at the edge of surface water features to intercept sediment before it reaches the waterway. These structures will be installed prior to any clearing or grading activities. Erosion control measures that employ monofilament netting will be prohibited within the work area.

- If spoil sites are used, they will be sited such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins will be constructed to intercept sediment before it reaches the feature. Spoil sites will be graded and vegetated to reduce the potential for erosion.

- Sediment control measures will be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until disturbed areas have been revegetated.

- All disturbed areas will be restored to preconstruction contours and revegetated, either through hydroseeding or other means, with native or approved non-invasive exotic species.

CONSERVATION MEASURE #2: PREVENTION OF ACCIDENTAL SPILLS

Construction specifications will include the following measures to minimize the potential for adverse effects resulting from accidental spills of pollutants (e.g., fuel, oil, grease).

- A site-specific spill prevention plan would be completed and implemented for all potentially hazardous materials. This would include containment methods for any use of concrete or other hazardous materials according to Caltrans Standard Specifications Section 14-11.03. The plan would include the proper handling and storage of all potentially hazardous materials, including concrete, and the proper procedures for cleaning up and reporting any spills. If necessary, containment berms would be constructed to prevent spilled materials from reaching surface water features.

- Equipment and hazardous materials will be stored at least 50 feet away from all waterways.

- Vehicles and equipment used during construction will receive proper and timely maintenance to reduce the potential for mechanical breakdowns leading to a spill of materials. Maintenance and fueling will be conducted in an area at least 50 feet away from waterways or within an adequate fueling containment area.

- For removal of the existing bridge, a debris containment and collection plan per Caltrans Standard Specifications section 14-11.13B (2) will be submitted. The plan must include shop drawings of containment systems complying with section 59-2.01C (2) and include the name and location of the disposal facility that will accept any hazardous wastes determined to be present.

CONSERVATION MEASURE #3: PREVENTION OF SPREAD OF INVASIVE SPECIES

Construction specifications will include a requirement to prevent the spread of invasive plants in the work area. The contractor will implement the following measures.

- All equipment used for off-road construction activities will be weed-free prior to entering the project area.
- If project implementation calls for mulches or fill, they will be weed-free.
- Any seed mixes or other vegetative material used for revegetation of disturbed sites will consist of locally adapted native plant materials to the extent practicable.

CONSERVATION MEASURE #4: GENERAL MEASURES FOR PROTECTION OF SPECIAL-STATUS WILDLIFE SPECIES

The County will implement the following general conservation measures to avoid or minimize the potential for adverse effects on special-status wildlife species:

- Prior to initiation of construction activities, workers will participate in environmental awareness training provided by a qualified biologist. The training will instruct workers: 1) how to identify special-status species, their various life forms, and their habitat components; 2) the potential for these species to be discovered and/or affected during construction activities; 3) how to identify sensitive habitats (e.g., wetlands, riparian); and 4) what to do if special-status species are encountered during construction activities.
- Construction access and equipment will be located on existing roads or previously disturbed parking areas.
- Vehicle speeds within off-road portions of the work area will not exceed 15 mph to avoid collisions with wildlife.
- Disturbance of soil, vegetation, naturally occurring debris piles (including fallen trees, woodrat nests, or dead tree snags), rocky outcrops, and existing burrows or crevices will be avoided or minimized to the extent possible.
- To the extent practicable, all holes or trenches will be covered at the end of each workday to prevent wildlife from becoming trapped. All holes and trenches will be inspected before each workday to facilitate the release of any trapped wildlife. A qualified biologist will be consulted if work crews are unable to safely assist in the release of trapped wildlife.
- To minimize attractants to wildlife, trash will be stored in containers that will be closed and latched or locked to prevent access by wildlife. All loose trash will be cleaned up daily.

CONSERVATION MEASURE #5: HUMAN REMAINS

Surface surveys are not infallible, and buried resources may be overlooked. Implementation of the following conservation measures will avoid or minimize the potential for significant effects to newly discovered resources.

- If human remains are discovered during project activities, all activities near the find will be suspended and the Stanislaus County Sheriff–Coroner will be notified. If the coroner determines that the remains may be those of a Native American, the coroner will contact the Native American

Heritage Commission (NAHC). Treatment of the remains will be conducted in accordance with the direction of the County Coroner and/or NAHC as appropriate.

CONSERVATION MEASURE #6: GREENHOUSE GAS EMISSIONS

Construction contract documents include provisions to minimize project-related greenhouse gas (GHG) emissions. The following measures will be implemented to reduce construction-related GHG emissions.

- Reuse and recycle construction and demolition waste including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard.
- Check that the project enhances, and does not disrupt or create barriers to, non-motorized transportation (e.g., bicycles, pedestrians) through proper preconstruction planning.
- Protect existing trees to the extent possible and encourage the planting of new trees.

CONSERVATION MEASURE #7: WILDFIRE POTENTIAL

Construction contract documents include measures to minimize project-related potential for wildfire ignition.

- Per the requirements of Public Resources Code Section 4442, the County will include a note on all construction plans that internal combustion engines will be equipped with an operational spark arrester, or the engine must be equipped for the prevention of fire.

2.6 Tentative Schedule

Construction would require one season to complete. It is anticipated to start in the spring of 2025 pending receipt of required environmental approvals, regulatory permits, and availability of project funding, and the bridge would be completed in approximately 8–10 months, ending in the late fall of 2025.

2.7 Required Permits and Approvals

The following permits will be required to implement the project:

- U.S. Army Corps of Engineers – Sacramento District: Section 404 Nationwide Permit 14 (Linear Transportation Projects)
- U.S. Fish and Wildlife Service – Pacific Southwest Region (Sacramento Fish And Wildlife Office): Federal Endangered Species Act Compliance
- Caltrans National Environmental Policy Act Determination (Categorical Exclusion [pursuant to 23 CFR 221.117l] issued <DATE>)
- California Department of Fish and Wildlife – Region 4: Section 1602 Streambed Alteration Agreement
- Central Valley Regional Water Quality Control Board: Section 401 Water Quality Certification
- Stanislaus County CEQA Notice of Determination to adopt the Initial Study/Mitigated Negative Declaration

3. ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

This chapter incorporates the Environmental Checklist contained in Appendix G of the CEQA Guidelines, including the CEQA Mandatory Findings of Significance. Each resource section provides a brief description of the setting, a determination of impact potential, and a discussion of the impacts. Where appropriate, mitigation measures are provided to reduce potential impacts to a less-than-significant impact. A discussion of cumulative impacts is included at the end of this chapter.

Addressed in this section are the following 20 environmental categories plus the mandatory findings of significance:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

Each environmental issue area was fully evaluated, and one of the following four impact determinations was made:

- **No Impact:** No impact to the environment would occur as a result of implementing the project.
- **Less-than-Significant Impact:** Implementation of the project would not result in a substantial and adverse change to the environment and no mitigation is required.
- **Less than Significant with Mitigation Incorporated:** A “significant” impact that can be reduced to a less-than-significant impact with the incorporation of project-specific mitigation measures.
- **Potentially Significant Impact:** Implementation of the project could result in an impact that has a “substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project” (CEQA Guidelines Section 15382).

3.1 Environmental Setting

REGIONAL SETTING

The site is located within San Joaquin Valley and near the eastern margin of the Great Valley geomorphic province of California. The Great Valley is located within the central portion of California and is an alluvial plain roughly 50 miles wide located between the Coast Ranges on the west and the Sierra

Nevada on the east. It is a northwest trending structural trough about 400 miles long that was formed by the westward tilting of the Sierra Nevada block.

LOCAL SETTING

The 9.44-acre project site is located along Cooperstown Road at its intersection with Rydberg Creek. The area is characterized by low rolling hills largely made up of annual grasslands. Cooperstown Road is mainly used for local access to residences and ranchlands. The ADT on Cooperstown Road near Rydberg Creek is approximately 50. The project area is largely bounded by rural residential and ranchlands.

CLIMATE

Climate within the project area is based on historical data collected at Knights Ferry, California, approximately 12 miles northwest of the project area. The project area is characterized by a Mediterranean climate with moderate winters and hot, dry summers. Precipitation in the project area averages approximately 17 inches annually. Average air temperatures range between a January high of 53 degrees Fahrenheit (ºF) and a July high of 95ºF. The year-round average high is approximately 74ºF. The growing season (i.e., 50 percent probability of air temperature 28ºF or higher) in the project area is year-round. The soil temperature regime is thermic.

EXISTING LAND USES

Cooperstown Road is generally used for local access to residences and ranchlands. Lands immediately adjacent to the project study area are zoned as A-2-40 (General Agriculture, 40-acre parcels).

TOPOGRAPHY

The topography of the action area immediately adjacent to the Rydberg Creek is nearly level; however, the topography is slightly lower in the study area along Rydberg Creek. Rydberg Creek bisects the project area, which is the only drainage in the project area. The project area is located at an elevation of approximately 300 feet above mean sea level.

AIR QUALITY

The project is located within the San Joaquin Valley Air Basin and is under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). No additional capacity is proposed for the project (no new through or turn lanes); and the project would not result in any new trips, vehicle miles traveled, nor vehicle hours traveled in the permanent condition. 40 Code of Federal Regulations (CFR) 93.126 lists specific types of projects that are exempt from all emissions analyses for determining air quality conformity. Included in the list “s "Widening narrow pavements or reconstructing bridges (no additional travel lanes)". Additionally, since the project is consistent with these requirements, the project will not be increasing operational traffic; and it is assumed to be consistent with SJVAPCD and exempt from local conformity review.

HYDROLOGICAL SETTING

Surface Waters

The project is located in the Rydberg Creek-Dry Creek Watershed (Hydrologic Unit Code 180400091301), with the main hydrology provided by Rydberg Creek. The creek is an intermittent stream whose headwaters are located approximately 6.7 miles northeast in the Sierra Nevada foothills. Inputs from five unnamed drainages and Quigley Creek converge into Rydberg Creek between the study area and the headwaters to Rydberg Creek. Hydrology for streams is generally provided by sheet flow, springs, and groundwater. Drainage within the study area generally flows from northeast to southwest. Rydberg Creek flows approximately 2 miles west to its confluence with Dry Creek, which is tributary to the Tuolumne River approximately 25 miles to the west. The Tuolumne River is a traditional navigable water.

At this time there are no known water quality assessments of Rydberg Creek. There is also no gauge data available regarding pathogens, nutrients, or sediment. As such, Rydberg Creek is not considered impaired under Clean Water Act (CWA) Section 303(d) (North State Resources, Inc. 2014; SWRCB 2012).

Groundwater

The project is located in the San Joaquin Valley Groundwater Basin–Modesto Subbasin (Subbasin Number 5-22.02), which covers approximately 247,000 acres or 385 square miles. The Modesto subbasin lies between the Stanislaus River to the north and Tuolumne River to the south, and between the San Joaquin River on the west and crystalline basement rock of the Sierra Nevada foothills on the east. According to calculations conducted by the California Department of Water Resources and cooperators, the total storage capacity of this subbasin is estimated to be 6,500,000 acre-feet to a depth of 300 feet. The annual natural recharge into the subbasin is estimated to be 86,000 acre-feet, and the annual applied water recharge into the subbasin is estimated to be 92,000 acre-feet. Annual urban and agricultural extractions are estimated to be 81,000 and 145,000 acre-feet, respectively.

Existing groundwater quality in this basin is characterized as being calcium bicarbonate type in the eastern subbasin to a calcium-magnesium bicarbonate type or calcium-sodium bicarbonate type in the western portion. Total dissolved solids values range from 60 to 8,300 milligrams per liter, with a typical range of 200 to 500 milligrams per liter (North State Resources, Inc. 2014).

SOILS

Two soil map units occur in the project area. They are described in the Custom Soil Resource Report for Stanislaus County (California Natural Resources Conservation Service 2020). Soil map units occurring within the project area are listed below:

- **Honcut Loam, 0 to 1 percent slopes (Soil Map Unit HpA).** This is a non-hydric, well-drained alluvium from igneous and granitic rock sources. Depth to the restrictive layer is more than 80 inches.
- **Hornitos gravelly fine sandy loam, 8 to 30 percent slopes (Soil Map Unit HyD).** This is a non-hydric, well-drained residuum weathered from sandstone rock sources. Depth to the restrictive layer is approximately 4 to 14 inches.

GEOLOGY

The site is located within San Joaquin Valley and near the eastern margin of the Great Valley geomorphic province of California. The Great Valley is located within the central portion of California and is an alluvial plain roughly 50 miles wide located between the Coast Ranges on the west and the Sierra Nevada on the east. It is a northwest trending structural trough about 400 miles long that was formed by the westward tilting of the Sierra Nevada block. Sediments have been continuously deposited within this trough for the last 160 million years (Jurassic period).

VEGETATION COMMUNITY TYPES

Habitat communities in the project site were classified based on habitat descriptions provided in *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988) and the results of the field survey. A total of six vegetation communities or other habitats were identified in the project study area which include annual grassland, barren, riverine, seasonal wetland, wetland swale, and vernal pool (Figure 3). Descriptions of these habitats are provided below.

Annual Grassland

Annual grassland occurs in the action area above the banks of Rydberg Creek. It is characterized as a dense herbaceous layer and is dominated by introduced annual grass species, including soft brome (*Bromus hordeaceus*), ripgut brome (*B. diandrus*), slender oats (*Avena barbata*), wall barley (*Hordeum murinum*), and bulbous bluegrass (*Poa bulbosa*). Common forbs include black mustard (*Brassica nigra*), valley tassel (*Castilleja attenuata*), broadleaf filaree (*Erodium botrys*), gumweed (*Grindelia camporum*), California burclover (*Medicago polymorpha*), German knotgrass (*Scleranthus annuus* ssp. *annuus*), and red-sand spurrey (*Spergularia rubra*). Blue oak (*Quercus douglasii*) occurs sparsely in the action area along Cooperstown Road to the south of the Rydberg Creek Bridge.

Barren

Barren areas are present on the dirt road (Cooperstown Road) and the associated road shoulders. Vegetation is absent on the road surface, although sparse opportunistic grasses and forbs are present on the road shoulders.

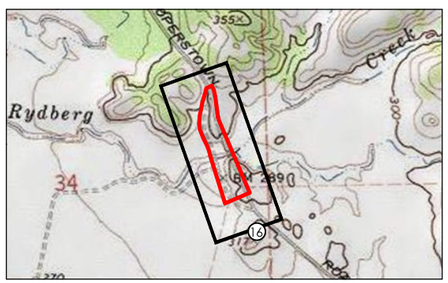
Riverine

Riverine habitat in the action area consists of Rydberg Creek. Rydberg Creek is dominated by run and riffle areas with cobble and gravel substrates. Vegetation within the active stream channel is sparse and limited to the banks. Rydberg Creek was mainly dry during a field delineation on May 7 and 8, 2013, and again on June 8, 2017, although a deep section of the creek approximately 50 feet upstream of the bridge contained standing water. A shallow pool was also present underneath the bridge at the time of the field delineations.

Riverine habitat provides a critical source of food and cover essential to the survival of a variety of wildlife species. In addition to considerations associated with fish, various invertebrates, and amphibians, riverine habitat provides resting and escape cover for many species of waterfowl and herons (*Ciconiiformes* spp.). In addition, many species of insectivorous birds, such as swallows (*Hirundinidae* spp.), swifts (*Apodidae* spp.), and flycatchers (*Tyrannidae* spp.), find their prey over water.

Seasonal Wetland, Wetland Swale, and Vernal Pool

The vernal pools and seasonal wetlands are located throughout the project study area within the annual grassland habitat. They fill with water during the rainy season and remain inundated until the water evaporates. There are two wetland swales that are located west of Cooperstown Road near the northern and southern extents of the action area. Both wetland swales are situated on hillsides that collect water from Cooperstown Road and drain west.



Notes

1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2013.
3. Orthoimagery © First Base Solutions, 20xx.

Action Area (9.44 acres)

Waters of the United States Outside Study Area

Waters of the United States

Wetlands

- Riparian Wetland
- Seasonal Wetland
- Wetland Swale
- Vernal Pool

Other Waters

- Intermittent Stream
- OHWM

Habitat Communities

- Annual Grassland
- Riverine
- Barren

Stantec

Project Location
Stanislaus County, CA

2272010000
Prepared by L. Morris on 2019-01-15
Technical C. Femino by on 2019-01-18
Independent Review by N.Eide on 2019-01-18

Client/Project
Cooperstown Road over Ryberg Creek
Bridge (No. 38C0257) Replacement Project

Figure No.
Figure 3

Title
Habitat Communties

Notes:
1. Detailed topographic contour data unavailable

V:\2272\active\2272010000\07.historical\gis_cad\GIS Working\MXDs\tm_working_folder\rve\2272010000_bo_fig3_habitat_communities.mxd Revised: 2019-01-18 By: tmorris

3.2 Environmental Impacts and Mitigation Measures

AESTHETICS

I. AESTHETICS — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				**X**
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			**X**	
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			**X**	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			**X**	

Discussion of Impacts

a) No Impact

A Visual Impact Assessment memorandum, which assesses the likely aesthetic alterations as a result of the project, was prepared (Quincy Engineering 2013). The environmental setting is rural Stanislaus County with the land use consisting of mostly agricultural (e.g., livestock grazing). While distant views of the Sierra Nevada foothills from the project area exist, no officially designated scenic resources, view sheds, scenic roadways, nor recreation areas are located in the vicinity of the project area. The project consists of replacing the existing Rydberg Creek Bridge and Cooperstown Road approaches with similar structures along the existing alignment and would be constructed in a manner consistent with the existing aesthetic. The project would have no impact on a designated scenic vista.

b) Less-than-Significant Impact

Cooperstown Road is not designated as a state scenic highway. The closest officially designated state scenic highway is approximately 40 miles to the southwest (Caltrans 2022). Cooperstown Road is also not identified as a local scenic highway in Stanislaus County's General Plan (Stanislaus County 2015). The project would have no impact to scenic resources within a state scenic highway. Removal of vegetation would be limited and localized to allow for the new bridge alignment. Vegetation removal impacts would be minimal, decreasing over time as vegetation re-establishes and viewers (e.g., tourists, residents) acclimate to the changes associated with the new bridge and its approaches. Project impacts on existing scenic qualities would be less than significant.

c) Less-than-Significant Impact

The project includes the replacement of the existing bridge with a similarly-sized structure, and no changes to the existing rural landscape are expected. Construction activities resulting from the project

would require the removal of up to two smaller oak trees located within the project site. Retention of oaks in the project area would maintain the intactness of the existing view. Additionally, the project site is not considered highly disturbed, and the vegetation does not receive substantial maintenance. Any affected vegetation is anticipated to grow back with no substantial permanent changes to existing views anticipated. The proposed use of the existing bridge and roadway alignments and the low structure profile would retain the qualities of the natural viewshed. The project's impact on existing visual character and quality of existing views would be less than significant.

d) Less-than-Significant Impact

Construction and operation of the project are not expected to result in increased glare in the project area. The minor removal of vegetation would not increase the potential for glare from project area surfaces. The project would not introduce any new light sources nor materials prone to glare. Because it would follow the existing alignment, headlights of vehicles traveling through the area would be buffered by surrounding vegetation, topography, and the limited number of sensitive receptors (e.g., residences) in line with the road. Project impacts from light or glare would be less than significant.

Mitigation Measures

No project-specific mitigation is required under this subject.

AGRICULTURAL AND FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

II. AGRICULTURAL AND FOREST RESOURCES —Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			**X**	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?			**X**	
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined by Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production as defined by Government Code Section 51104(g))?				**X**

II. AGRICULTURAL AND FOREST RESOURCES —Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in loss of forest land or conversion of forest land to non-forest use?				**X**
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use, or conversion of forest land to non-forest use?				**X**

Discussion of Impacts

a) Less-than-Significant Impact

Certain lands within and surrounding the project area have been designated by the state as Prime Farmland (if irrigated). However, the land is not currently irrigated. Therefore, no lands within or surrounding the project area are considered Farmland as defined by the California Resources Agency (DOC 2021). The lands surrounding the project area are used primarily for livestock grazing. Construction of the temporary detour could convert 1.57 acres of grassland (i.e., grazing land) to road uses; however, any loss would be negligible and short-term. The placement of new fill material for the road bed and abutments and roadway approaches would remove a small amount of grassland; however, the conversion of potential grazing land would result in a minor permanent loss of 0.50 acre. Since livestock would be restricted from entering the expanded Stanislaus County ROW by a realignment of an existing fence, the project is not expected to result in adverse impacts to current ranching operations. Because there is no Farmland in the vicinity of the project area, as defined by the California Resources Agency, the project would not result in the conversion of Farmland. Project impacts regarding the conversion of Farmland to non-agricultural use would be less than significant (Stantec 2022).

b) Less-than-Significant Impact

The project requires the acquisition of additional ROWs along Cooperstown Road and would temporarily encroach on 1.57 acres of land (APN 011-012-010-00) that is currently under Williamson Act contract and zoned as Agriculture (DOC 2012; Stanislaus County 2015). Construction of the temporary detour could convert a small amount of grassland (i.e., grazing land) on this parcel to road uses; however, any loss would be negligible and short-term as grasses would grow back following construction. Because the encroachment would be temporary, and because any loss of grazing land would be negligible, the project would not impair the use of the land for agricultural use. The new bridge and roadway approaches would also require the acquisition of additional ROWs, approximately 15 feet on either side of Cooperstown Road, for about 600 feet along Cooperstown Road, for a total acreage of 0.50 acre. Since livestock will be restricted from entering the expanded Stanislaus County ROW by a realignment of an existing fence, the project is not expected to result in adverse impacts to current ranching operations. Additionally, the acreage to be removed from Williamson Act protection is minor and would not result in the total cancellation of the existing Williamson Act contract. Prior to construction, the County would notify the California Department of Conservation (DOC) of its proposal to acquire land that is under a Williamson Act Contract for the project. The notification will follow the procedures set forth by the California DOC Public Acquisitions of Williamson Act Contracted Land and identify: 1) the amount of land that would be acquired to implement the project; and 2) the remaining land not required for project implementation that

would remain under a Williamson Act Contract. The project would have a less-than-significant impact to lands under the Williamson Act Contract or land zoned as agriculture.

c) No Impact

No forestland, timberland, or timberland zoned for timber production is located in the project area or vicinity. The project would not cause rezoning of forestland, timberland, or timberland zoned for timber production. The project would have no impact on existing zoning.

d) No Impact

The project area does not include any designated forestland. The project would not convert any forestland to non-forest uses and would not result in the loss of forestlands in Stanislaus County. The project would have no impact on forestland.

e) No Impact

There are no lands within or surrounding the project area that are considered Farmland as defined by the California Resources Agency. No other aspects of the project would result in changes in the existing environment that could result in the conversion of Farmland to non-agricultural use. The project area does not include any forestland. The project would have no impact on farmland.

Mitigation Measures

No project-specific mitigation is required under this subject.

AIR QUALITY

III. AIR QUALITY — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				**X**
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?		**X**		
c) Expose sensitive receptors to substantial pollutant concentrations?				**X**
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			**X**	

Discussion of Impacts

a) No Impact

The project is consistent with the site land use and zoning, as designated in the Stanislaus County General Plan and Zoning Code. All construction easements would be temporary. The replacement of an

existing bridge along the existing alignment, with no additional travel lanes, would not increase traffic. Construction and operation of the project would not conflict with or obstruct implementation of any federal, state, or local air quality plan, and there would be no impact.

b) Less than Significant with Mitigation Incorporated

The project is located within the San Joaquin Valley Air Basin, under the jurisdiction of SJVAPCD. The California Air Resources Board designates areas of the state as being in attainment, non-attainment, or unclassified for any state standard:

- **Attainment:** Pollutant concentrations do not violate a pollutant standard within the area.
- **Non-Attainment:** Pollutant concentrations violate the standard at least once within a calendar year.
- **Unclassified:** Pollutant data are not sufficient to determine the attainment or non-attainment status for an air basin.

The air quality attainment status for Stanislaus County is summarized in Table 1.

Table 1. National Ambient Air Quality Standards and California Ambient Air Quality Standards Attainment Status for Stanislaus County

Pollutant	Designation/Classification	
	Federal Standards	State Standards
Ozone – 8-Hour	No Federal Standard	Non-attainment/Severe
Ozone – 1-Hour	Non-attainment/Extreme	Non-attainment
Particulate Matter 10 Microns or Less	Attainment	Non-attainment
Particulate Matter 2.5 Microns or Less	Non-attainment	Non-attainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Sulfates	No Federal Standard	Attainment
Lead	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

Sources: Maps of State and Federal Area Designations (CARB 2021a); Non-attainment Areas for Criteria Pollutants (EPA 2022)

Stanislaus County is in “non-attainment” status for ozone and particulate matter 2.5 microns or less ($PM_{2.5}$) for both state and federal standards, and in “non-attainment” status for particulate matter 10 microns or less (PM_{10}) for state standards (California Air Resources Board 2021b). However, due to its smaller size, the project would not substantially contribute to cumulative air quality impacts in the San Joaquin Valley.

Long-Term Emissions

The project is not increasing traffic capacity as it would replace an existing one-lane bridge with a new two-lane structure, with no additional travel lanes as the bridge approaches along Cooperstown Road which already accommodates two-lanes of traffic. Consequently, additional long-term emissions associated with increased traffic in the project study area are not expected to be generated as a result of operation of the project.

Construction Emissions

Temporary construction activities for the project may include site preparation and bridge construction that would involve excavation, grading, and other construction activities. Construction equipment, such as front-end loaders, bulldozers, graders, dump trucks, backhoes, excavators, and pick-up trucks would be used during construction. During construction, short-term air quality impacts are expected from the release of particulate emissions (i.e., airborne dust) generated by excavation, grading, hauling, and other activities related to construction. These emissions would be intermittent and temporary and limited to the immediate area surrounding the construction site. The total construction time is anticipated to be 8–10 months.

Of these emissions, PM_{10} is of greatest concern for construction projects. PM_{10} can originate from construction vehicle and equipment emissions and fugitive dust. While Stanislaus County is in "non-attainment" for ozone precursor emissions, most notably nitrogen oxides and reactive organic gases, they are only significant in the case of large or intense construction projects, which is not the case for this project (SJVAPCD 2022a). Construction emissions were estimated using the latest Sacramento Metropolitan Air Quality Management District's Road Construction Model (Version 9.00) (SMAQMD 2018). Construction emissions for the project are presented in Table 2. The emissions presented are based on the best information available at the time of calculations. The emissions represent the peak daily construction emissions that would be generated by construction of the project.

Table 2. Construction Emissions from Construction Activity

Activity	Carbon Monoxide	Nitrogen Oxides	Reactive Organic Gases	Sulfur Oxides	Particular Matter (10 Microns or Less)	Particular Matter (2.5 Microns or Less)
Grubbing/Land Clearing (lbs/day)	9.56	8.93	0.91	0.02	0.59	0.39
Grading/Excavation (lbs/day)	64.79	79.66	7.71	0.16	3.49	3.00
Drainage/Sub-Grade (lbs/day)	46.73	55.38	5.42	0.11	2.47	2.11
Paving (lbs/day)	12.86	9.11	0.93	0.02	0.47	0.41
Maximum Daily (lbs/day)	64.79	79.66	7.71	0.16	3.49	3.00
Project Total (tons)	5.07	6.02	0.59	0.01	0.27	0.23

Source: Sacramento Metropolitan Air Quality Management District Roadway Construction Emissions Model (SMAQMD 2018)

The SJVAPCD emphasizes implementation of effective and comprehensive control measures rather than detailed quantification of construction emissions. All construction activities would follow the SJVAPCD

rules and would implement all appropriate air quality best management practices (BMPs), including minimizing equipment idling time and use of water or similar chemical palliative to control fugitive dust. Specifically, SJVAPCD requires all construction projects to comply with Regulation VIII Control Measures (SJVAPCD 2022b). All control measures relevant to this project have been included in Mitigation Measure AQ-1 (Air Quality/ Dust Control). Implementation of these measures would reduce PM_{10} impacts to a level considered less than significant.

c) No Impact

During construction, short-term degradation of air quality is expected from the release of particulate emissions (e.g., airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment powered by gasoline and diesel engines are also anticipated and would include carbon monoxide, nitrogen oxides, volatile organic compounds, directly emitted PM_{10} and $PM_{2.5}$, and toxic air contaminants, such as diesel exhaust particulate matter. The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during grading and excavation activities. In addition, incidental amounts of toxic substances, such as oils, solvents, and paints, would be used during construction. These substances would comply with all applicable SJVAPCD rules for their manufacture and use. However, there are no sensitive receptors, such as schools, hospitals, or daycare centers, located within 3 miles of the project site; and the nearest residence is over 0.5 mile away. Therefore, the project would have no impact on exposing sensitive receptors to substantial pollution concentrations.

d) Less-than-Significant Impact

Construction activities would involve the use of gasoline or diesel-powered equipment that emits exhaust fumes. Construction could also involve asphalt paving, which has a distinctive odor during application. While persons near the construction work area may find these odors objectionable, emissions would be infrequent, would dissipate rapidly, and would be temporary. The effect of odors generated by project construction would be less than significant.

Mitigation Measures

Mitigation Measure AQ-1: Air Quality/Dust Control

In the construction bid documents, the County will include provisions that the contractor will implement a dust control program to limit fugitive dust emissions. The dust control program will include, but not be limited to, the following elements, as appropriate:

- The construction contractor will comply with San Joaquin Valley Air Pollution Control District Regulation VIII as it pertains to fugitive dust (i.e., particulate matter 10 microns or less).

  To control dust, water will be applied on all stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces (inactive construction sites) at least twice daily or until soils are sufficiently stable to prevent being carried away by winds.

- Water will be applied on disturbed open soil by means of pressure-type distributors or pipelines equipped with a spray system or hoses and nozzles that will provide an even distribution of water.

- All distribution equipment will be equipped with a positive means of shutoff.

- If reclaimed water is used, the sources and discharge must meet California Department of Health Services water reclamation criteria and the Central Valley Regional Water Quality Control Board requirements. Non-potable water will not be conveyed in tanks or drain pipes that will be used to convey potable water, and there will be no connection between potable and non-potable water. Non-potable tanks, pipes and other conveyances will be marked “NON-POTABLE WATER – DO NOT DRINK.”

- Pursuant to California Vehicle Code, all trucks hauling soil and other loose material to and from the construction site will be covered or maintain at least 6 inches of freeboard (i.e., minimum vertical distance between the top of the load and the trailer).

- Any topsoil removed during construction will be stored on-site in piles no higher than four feet to allow development of microorganisms prior to replacing the soil in the construction area. The topsoil piles will be clearly marked and flagged. Topsoil piles that will not immediately be used in the construction area will be revegetated with a non-persistent erosion control mixture.

- Soil piles for backfill will be marked and flagged separately from native topsoil stockpiles. These soil piles will also be surrounded by silt fencing, straw wattles, or other sediment barriers or covered unless they are to be used immediately.

- All stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces will be watered by hand or with watering equipment, as necessary, to reduce airborne dust.

- All on-site unpaved roads and off-site unpaved access roads will be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.

- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities will be effectively controlled of fugitive dust emissions by water application or by presoaking.

- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles will be effectively stabilized of fugitive dust emissions using sufficient water or chemical stabilizer/suppressant. Materials applied as temporary stabilizers will also provide wind erosion control benefits.

- If the project generates 150 or more vehicle trips per day, the construction contractor will prevent carryout and trackout.

Timing/Implementation: Prior to a construction/during construction/post construction
Enforcement: San Joaquin Valley Air Pollution Control District
Monitoring: County and/or its contractor

BIOLOGICAL RESOURCES

IV. BIOLOGICAL RESOURCES — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		**X**		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				**X**
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		**X**		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			**X**	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				**X**
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				**X**

Discussion of Impacts

a) Less than Significant with Mitigation Incorporated.

A biological assessment (BA) (Stantec 2021) and a delineation of waters of the U.S. (Stantec 2020a) were used to assess the project impacts on special-status biological resources known to occur in the project area, and the results are provided in the project's natural environment study (Stantec 2020b).

Aquatic habitat is present in the project area, although Rydberg Creek was dry during the site visit on May 7 and 8, 2013, and June 8, 2017. The aquatic habitat in the project area does not include holding, spawning, or rearing habitat suitable for special-status anadromous fish species such as Chinook salmon (*Oncorhynchus tshawytscha*) or steelhead (*Oncorhynchus mykiss* ssp*. irideus*).

Special-Status Plants

Based on the review of habitat requirements of the regionally occurring special-status plants and the results of the field assessment, it was determined that annual grassland and associated wetland features in the project study area provide potentially suitable habitat for six special-status plant species as follows:

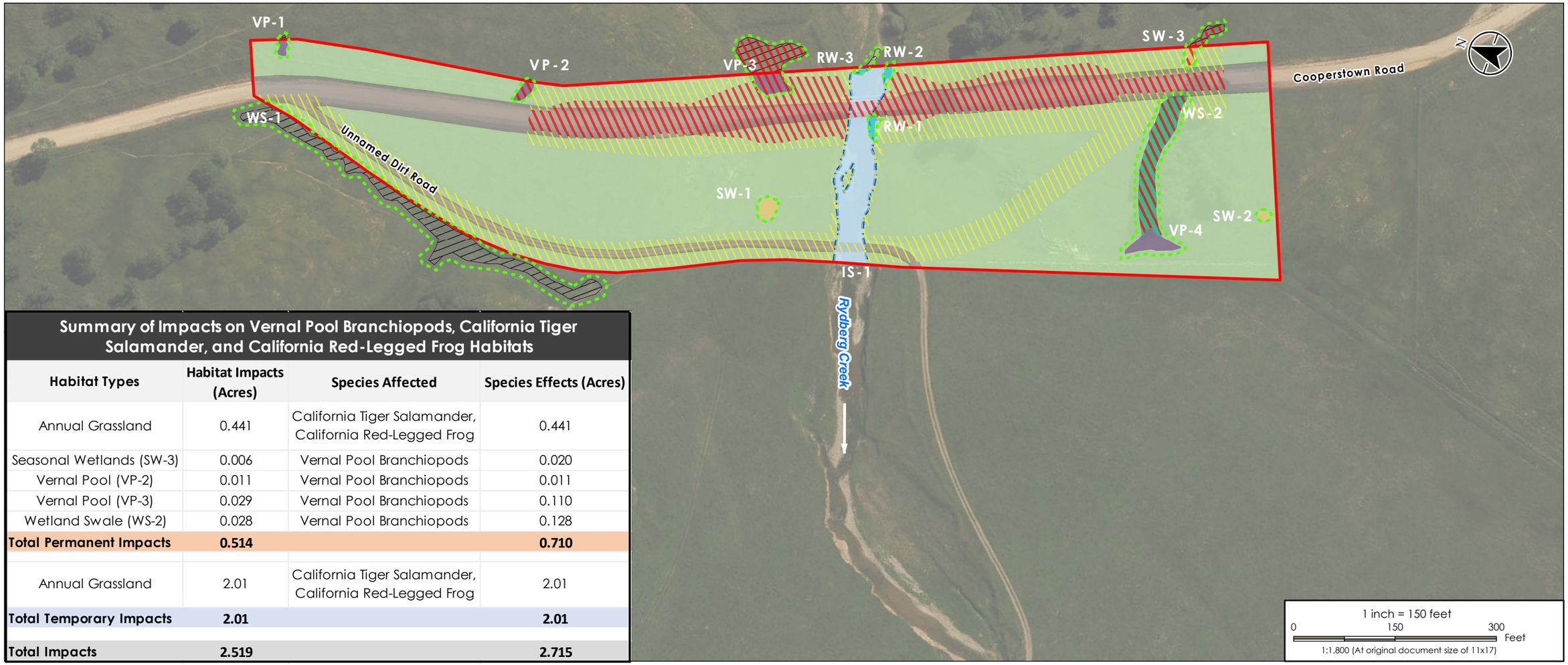
- Hoover's calycadenia (*Calycadenia hooveri*), California Native Plant Society List 1B.3
- Colusa grass (*Neostapfia colusana*), Federal Threatened, State Endangered, Critical Habitat
- Greene's tuctoria (*Tuctoria greenei*), Federal Endangered, State Rare, Critical Habitat
- Hairy Orcutt grass (*Orcuttia pilosa*), Federal Endangered, State Endangered, Critical Habitat
- Hoover's spurge (*Chamaesyce hooveri*), State Threatened, Critical Habitat
- Succulent owl's clover (*Castilleja campestris* ssp. *succulenta*), Federal Threatened, State Endangered, Critical Habitat

The botanical survey conducted on May 7, 8, 2013, and June 8, 2017, occurred within the blooming period of the six plants listed above. No special-status plant species were observed during the botanical survey. While the 2017 site visit determined that conditions are similar to those observed in 2013, due to the length of time since the previous survey, a botanical survey is recommended prior to construction and during the blooming periods of potential special-status plants (Mitigation Measure BIO-1 [Special-Status Plants]) to confirm that impacts to special-status plants would be less than significant.

The project study area is in the Merced core area of designated critical habitat for five plant species (excluding Hoover's calycadenia), which is part of the southern Sierra Foothills vernal pool region. Habitat for these species consists of seasonally inundated, rain-filled pools in grasslands with an underlying hardpan to prevent the percolation of water. Three seasonal wetlands, four vernal pools, and two wetland swales are present in and immediately adjacent to the project study area. These features support the two physical or biological features of critical habitat for these species.

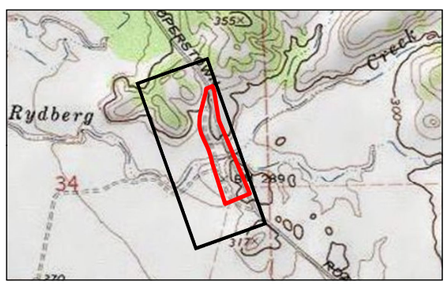
Proposed modifications to Cooperstown Road to accommodate the new bridge structure could result in disturbance to and discharge of fill material into a vernal pool (Figure 4). The project site overlaps with critical habitat for Colusa grass, hairy Orcutt grass, fleshy owls-clover, Greene's tuctoria, and Hoover's spurge; however, the project activities have been identified as having no impact on these species. Implementation of the project would have no direct impact on designated critical habitat for the five plant species.

Indirect impacts on wetlands outside the project construction limits from pollutants in surface runoff during construction activities would be minimized with implementation of Conservation Measures #1 (Erosion and Sedimentation Control) and Conservation Measure #2 (Prevention of Accidental Spills), as described in Section 2.5. These impacts would result in a negligible loss of critical habitat (less than 0.01 acre of seasonal wetlands) for listed plant species. Because the project is within designated critical habitat for Colusa grass, Greene's tuctoria, hairy Orcutt grass, Hoover's spurge, and succulent owl's clover, a BA (Stantec 2021) was prepared to comply with the Endangered Species Act which determined that the project would have no effect on these species nor their designated critical habitat. The U.S. Fish and Wildlife Service (USFWS) concurred with this determination in their Biological Opinion, which was issued on November 9, 2021 (08ESMF00-2021-F-2643).



Summary of Impacts on Vernal Pool Branchiopods, California Tiger Salamander, and California Red-Legged Frog Habitats

Habitat Types	Habitat Impacts (Acres)	Species Affected	Species Effects (Acres)
Annual Grassland	0.441	California Tiger Salamander, California Red-Legged Frog	0.441
Seasonal Wetlands (SW-3)	0.006	Vernal Pool Branchiopods	0.020
Vernal Pool (VP-2)	0.011	Vernal Pool Branchiopods	0.011
Vernal Pool (VP-3)	0.029	Vernal Pool Branchiopods	0.110
Wetland Swale (WS-2)	0.028	Vernal Pool Branchiopods	0.128
Total Permanent Impacts	**0.514**		**0.710**
Annual Grassland	2.01	California Tiger Salamander, California Red-Legged Frog	2.01
Total Temporary Impacts	**2.01**		**2.01**
Total Impacts	**2.519**		**2.715**



Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2013.
3. Orthoimagery © First Base Solutions, 20xx.

- Action Area (9.44 acres)
- Proposed Environmentally Sensitive Areas
- Permanent Impact
- Temporary Impact
- Waters of the United States Outside Study Area

Waters of the United States
Wetlands
- Riparian Wetland (0.013 acre)
- Seasonal Wetland (0.026 acre)
- Wetland Swale (0.127 acre)
- Vernal Pool (0.078 acre)

Other Waters
- Intermittent Stream (0.280 acre, 287 linear feet)
- OHWM

Habitat Communities
- Annual Grassland (7.54 acres)
- Riverine (0.28 acre)
- Road (1.62 acres)

Stantec

Project Location
Stanislaus County, CA

2272010000
Updated by D. Law on 2020-05-21
Technical Review by N. Eide on 2020-05-21
Independent Review by C. Femino on 2020-05-21

Client/Project
Cooperstown Road over Ryberg Creek Bridge (No. 38C0257) Replacement Project

Figure No. **Figure 4**

Title
Species Effects & Habitat Impacts

Notes:
1. Detailed topographic contour data unavailable

V:\1857\Active\2272010000-07_historical\gis_cad\GIS\Working_MXDs\m_working_folder\wor\draft_2272010000_boi_fig4_project_impacts_20190916.mxd Revised: 2020-05-21 By: Dalaw

Special-Status Wildlife

Based on the review of habitat requirements and the results of the field assessment, the following 16 special-status wildlife species were determined to have the potential to use habitats in the project area or immediate vicinity (Stantec 2020b):

Invertebrates

- Crotch's bumble bee (*Bombus crotchii*): Candidate for California Endangered Species
- Vernal pool fairy shrimp (*Branchinecta lynchi*): Federally Threatened
- Vernal pool tadpole shrimp (*Lepidurus packardi*): Federally Endangered

Amphibians and Reptiles

- California tiger salamander (*Ambystoma californiense*): Federally Threatened/State Threatened
- California red-legged frog (*Rana draytonii*): Federally Threatened/State-listed species of special concern (SSC)
- Western spadefoot (*Spea hammondii*): Federally Proposed, Threatened/State-listed SSC
- Western pond turtle (*Actinemys marmorata*): Federally Proposed, Threatened/State-listed SSC
- Blainville's Horned Lizard (*Phrynosoma blainvillii*): State-listed SSC

Birds

- Swainson's hawk (*Buteo swainsoni*): State Threatened
- white-tailed kite (*Elanus leucurus*): State Fully Protected
- loggerhead shrike (*Lanius ludovicianus*): State-listed SSC
- Western burrowing owl (*Athene cunicularia hypogea*): State-listed SSC

Mammals

- San Joaquin kit fox (*Vulpes macrotis*): Federally Endangered/State Threatened
- American badger (*Taxidea taxus*): State-listed SSC
- Pallid bat (*Antrozous pallidus*): State-listed SSC
- Western Red Bat (*Lasiurus blossevillii*): State-listed SSC

Crotch's Bumble Bee

Crotch's bumble bee is a California Endangered Species Act candidate species. The species was once common throughout central and Southern California, but it has experienced sharp population declines over the last decade. Suitable Crotch's bumble bee habitat consists of grasslands and upland scrub that support small mammal burrows, and the species primarily nest from late February through late October in abandoned small mammal burrows. They are also known to nest under perennial bunch grasses and thatched annual grasses brush piles and in dead trees, hollow logs, and old birds' nests. Mated queens overwinter in soft, disturbed soil or under leaf litter.

Annual grassland with small mammal burrows are present at the project site, so there is potential for Crotch's bumble bee to occur. As a result, project construction activities have potential to significantly impact this species. Mitigation Measure BIO-2 (Crotch's Bumble Bee) described below would be implemented to reduce any impacts on Crotch's bumble bee to a less-than-significant impact. In addition, Conservation Measure #1 (Erosion and Sedimentation Control), Conservation Measure #2 (Prevention of

Accidental Spills), Conservation Measure #3 (Prevention of Spread of Invasive Species), and Conservation Measure #4 (General Measures for Protection of Special-Status Wildlife Species), as described in Section 2.5, would be implemented to provide additional protections to natural resources. Impacts to Crotch's bumble bee would be mitigated to a less-than-significant impact with implementation of these measures.

Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

Vernal pools and seasonal wetlands within the project study area and other wetlands adjacent to the project study area provide habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp. The project study area is within the known range of vernal pool tadpole shrimp, and vernal pool fairy shrimp is known from scattered populations on private lands in Stanislaus County. No California Natural Diversity Data Base (CNDDB) records for vernal pool branchiopods exist within a 5-mile radius of the project study area. The vernal pools and most of the seasonal wetlands are inundated for a sufficient duration to provide suitable habitat for the vernal pool brachiopods. These wetlands are in close enough proximity to one another to allow individuals or eggs to be transported by birds and other vertebrates. The wetlands in and adjacent to the project study area appear to be hydrologically isolated from other wetland complexes that may exist in nearby areas, which limits the potential for the branchiopods to be transported into the project study area.

The project would have minimal effects on vernal pools and seasonal wetlands in the project study area. Direct impacts on vernal pool branchiopod habitat could occur if wetlands are graded or filled to accommodate the roadway improvements (0.040 acre of vernal pools, 0.028 acre of wetland swale, and 0.006 acre of seasonal wetland could be permanently affected) (Figure 4). Indirect impacts to seasonal wetlands and vernal pools outside the project study area could result from hydrologic disruptions or pollutant discharge in runoff. These impacts could affect habitat suitability of the wetlands in and adjacent to the project study area for the vernal pool branchiopods. Because the project may affect vernal pool fairy shrimp and vernal pool tadpole shrimp, which are federally listed species, a BA was prepared to comply with the Endangered Species Act (Stantec 2021). The effect determination in the BA is that the project may affect, and is likely to adversely affect, vernal pool fairy shrimp and vernal pool tadpole shrimp. Mitigation Measure BIO-3 (Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp) described below would be implemented to reduce any impacts on these species to a less-than-significant impact. In addition, Conservation Measure #1 (Erosion and Sedimentation Control) and Conservation Measure #2 (Prevention of Accidental Spills), described in Section 2.5, would be implemented to reduce the potential for erosion, siltation, and inadvertent chemical spills, thereby reducing the potential for indirect impacts to adjacent habitat.

California Red-Legged Frog

Stanislaus County is not considered part of the California red-legged frog's current range, but it was part of the historic range. California red-legged frogs are presumed to be extirpated from the Central Valley floor (Stantec 2021), and most of Stanislaus County is located on the Valley floor. The action area is approximately 40 miles northwest of the nearest designated critical habitat unit for California red-legged frogs (Stantec 2021). The nearest occurrence record for this species, dated 1950, is located approximately 21 miles northeast of the project study area in Woods Creek, which is near the communities of Chinese Camp and Jamestown in Tuolumne County. No occurrences have been reported in the Rydberg Creek watershed.

Based on field observations and a review of aerial imagery, ponds and perennial and seasonal pools are located within 1 mile of the project study area. Permanently inundated water features that may provide suitable breeding habitat for the California red-legged frog include three stock ponds located 0.5 to 0.9 mile to the north and east of the project study area.

Aerial imagery indicates that these ponds may support emergent vegetation. These stock ponds may support populations of American bullfrogs (*Lithobates catesbianus*), a predator and competitor of the California red-legged frog, based on the presence of bullfrogs in the action area. If bullfrogs were present, California red-legged frog would be less likely to use these stock ponds for breeding. At the project site, Rydberg Creek lacks suitable characteristics needed to support breeding California red-legged frog, including sufficient water depth, inundation period to support metamorphosis and cover. In addition, this system is known to support populations of American bullfrogs.

Rydberg Creek flows intermittently during winter and spring months, and residual channel pools along the creek outside the action area may hold water as late as June or July. The isolated pools in Rydberg Creek near the project study area are approximately 1 foot deep and lack emergent vegetation for egg attachment and cover for frogs. The seasonal wetlands in and adjacent to the action area also lack sufficient water depth, inundation period to support metamorphosis, and cover required to support California red-legged frog breeding. Therefore, the lack of these key habitat characteristics would preclude this species from breeding in the project study area.

Construction activities associated with the project are expected to occur between late-spring and fall, when the creek channel and surrounding uplands at this location are typically dry, and the probability of encountering dispersing California red-legged frogs is lowest. If work occurs when Rydberg Creek is wet or during wet conditions, California red-legged frogs, if present in nearby aquatic breeding habitat, may move through the stream corridor or overland to disperse or seek another aquatic habitat. If California red-legged frogs are present in the project site during construction activities, direct impacts could include increased risk of injury, predation, and stress resulting from obstruction of movement corridors due to the presence of crews and equipment in the creek; the use of a temporary diversion structure in the creek; filling or crushing of crevices or other areas used for refuge; injuries resulting from direct contact with construction vehicles and equipment during construction activities; and silting, fill, or spill of oil or other chemicals into Rydberg Creek resulting in reduced water quality and degradation of dispersal habitat. No designated critical habitat occurs in the project study area; therefore, there would be no impact on critical habitat.

Mitigation Measure BIO-4 (California Red-Legged Frog and California Tiger Salamander) described below would be implemented to reduce any impacts on salamanders and frogs to a less-than-significant impact. In addition, Conservation Measure #1 (Erosion and Sedimentation Control), Conservation Measure #2 (Prevention of Accidental Spills), and Conservation Measure #4 (General Measures for Protection of Special-Status Wildlife Species), described in Section 2.5, would be implemented to maintain water quality and provide additional protections to natural resources. Impacts to California red-legged frog would be mitigated to a less-than-significant impact with implementation of these measures.

California Tiger Salamander

The California tiger salamander primarily inhabits annual grasslands but may also occur in hardwood forests and along streams in valley-foothill riparian habitat. The project study area is located within the current known range of the California tiger salamander, which extends from Sonoma County east to the

Yolo-Colusa County line and south to Tulare County in the Central Valley. Along the Coast Range, California tiger salamander occurs from Sonoma County south to Santa Barbara County (Stantec 2021). The nearest CNDDB record for this species occurs approximately 3.4 miles to the northwest of the project study area, about 8 miles southeast of Knights Ferry in Stanislaus County. The record is approximately 0.5 mile from Dry Creek, which is hydrologically connected to Rydberg Creek. This population is considered to be extant, with surrounding habitat abundant (Stantec 2021).

Based on a review of aerial imagery (Google Earth aerial imagery 1993–2015), permanent and seasonal water features and annual grasslands in the vicinity of the project study area may provide suitable aquatic breeding and upland habitat for California tiger salamanders. Three stock ponds that may provide breeding habitat are located between 0.5 and 0.9 mile to the north and east of the project study area. Seasonal water features (i.e., vernal pools and seasonal wetlands) that may also support breeding habitat are dispersed throughout the grasslands in the vicinity of the project study area. Most of these seasonal features are located south of Rydberg Creek, with the nearest occurring approximately 0.25 mile southeast of the project study area. Annual grasslands and oak woodlands in the vicinity of the project study area provide upland habitat for the salamander where underground refugia (e.g., small mammal burrows, soil cracks) are present.

Seasonal wetlands, annual grasslands, and oak woodlands in and adjacent to the project study area could provide habitat for the California tiger salamander. The seasonal wetlands in the project study area were shallow and dry at the time of the survey and would not support breeding habitat for the salamander due to the lack of sufficient inundation to support larval development. Furthermore, American bullfrog (*Lithobates catesbianus*) adults and tadpoles were observed in pools in Rydberg Creek during the field survey, which diminishes the habitat quality for the salamander in the project study area given that bullfrogs are predators of the species (Stantec 2021). California tiger salamander could use the small mammal burrows present in the project study area as underground refugia and may use the area as upland dispersal/migration habitat during wet conditions, but it is not expected to breed in the project study area.

Ground-disturbing activities during establishment of the temporary detour and road improvements in approximately 2 acres of annual grasslands could disturb burrows that may provide refugia for California tiger salamander and inadvertently affect individual salamanders if present in the burrows. Minimal permanent habitat impacts would occur because the project has been designed to minimize impacts on native habitats, with the majority of construction activities occurring in previously disturbed areas (i.e., existing dirt roadway) or within areas considered to be of lower quality habitat (e.g., existing roadway shoulders). Approximately 0.5 acre of annual grasslands along Cooperstown Road would be permanently affected by roadway modifications. These grassland areas along the road provide only marginal quality habitat for California tiger salamander, as they are unlikely to support burrows or other refugia for the species. Construction activities would be scheduled during the dry season, and impacts on dispersing salamanders are not anticipated because they are not likely to be moving overland through the project study area during construction. No breeding habitat for California tiger salamanders would be impacted.

Construction activities that would temporarily impact potential habitat would include the following: vegetation clearing, grading, and grubbing of the project study area for site preparation and the mobilization and staging of heavy equipment in potential upland habitat. These activities could result in take of California tiger salamander through injury, mortality, or displacement if they are present in the work area or surrounding vicinity. The temporary impacts on potential habitat for these species may also

result in increased predation or lowered reproductive success by limiting the amount and quality of habitat in the project study area.

The project would require on-site refueling of construction equipment to support construction activities. As a result, minor fuel and oil spills may occur, with a risk of larger releases. Without rapid containment and clean up, these materials could be potentially toxic to aquatic and terrestrial plants, wildlife, and fish species, depending on the location of the spill in proximity to these resources. Oils, fuels, and other contaminants could have deleterious effects on all biota present within close proximity to construction activities. Additionally, habitat and species composition of both plants and animals could be affected by accidental spills. These effects may result in increased predation or lowered reproductive success by limiting the amount and quality of habitat in the project study area.

Mitigation Measure BIO-4 (California Red-Legged Frog and California Tiger Salamander) described below would be implemented to reduce any impacts on salamanders and frogs to a less-than-significant impact. In addition, Conservation Measure #1 (Erosion and Sedimentation Control), Conservation Measure #2 (Prevention of Accidental Spills), and Conservation Measure #4 (General Measures for Protection of Special-Status Wildlife Species), described in Section 2.5, would be implemented to maintain water quality and provide additional protections to natural resources. Impacts to California tiger salamander would be mitigated to a less-than-significant impact with implementation of these measures.

Western Spadefoot

The project study area is in the current known range of Western spadefoot. The CNDDB reports the nearest occurrence of the species is approximately 3.1 miles northwest of the project study area, near the confluence of Dry Creek and North Fork Dry Creek. The CNDDB records for this occurrence state that larval toads were observed in a vernal pool within the Stone Corral Ecological Reserve in 1995. Based on field observations and a review of aerial imagery (Google Earth aerial imagery 1993-2015), seasonal wetlands that may support breeding habitat for Western spadefoot are dispersed across annual grasslands around the project study area. Most of these seasonal features are south of Rydberg Creek, with the nearest occurring approximately 0.25 mile southeast of the project study area. The hydroperiod of the seasonal wetlands in the project study area is likely longer than three weeks during years with average or above-average rainfall, making them potentially suitable for breeding (Stantec 2020b). However, the presence of American bullfrogs, a predator and competitor of Western spadefoot, in Rydberg Creek reduces the potential for Western spadefoot to use the wetlands in the project study area. Rydberg Creek would not function as breeding habitat given the fluctuating flow volumes anticipated during the species' breeding season (October through April). Burrows in the project study area could support burrowing and aestivation of the species during the nonbreeding season.

Impacts on the Western spadefoot would be similar to those described for the California tiger salamander. Ground-disturbing activities in the grasslands during establishment of the roadway improvements could affect burrows and injure individuals of the species if present in the burrows. Impacts on the seasonal wetlands in the project study area would also affect potential breeding habitat for Western spadefoot. Abundant potential habitat for the species would remain in the vicinity of the project study area; therefore, the net loss of habitat as a result of the project implementation for Western spadefoot would be negligible.

Implementation of Mitigation Measure BIO-4 (California Red-Legged Frog and California Tiger Salamander), described below, and Conservation Measure #1 (Erosion and Sedimentation Control), Conservation Measure #2 (Prevention of Accidental Spills), and Conservation Measure #4 (General

Measures for Protection of Special-Status Wildlife Species), described in Section 2.5, would mitigate impacts to Western spadefoot to a less-than-significant impact.

Western Pond Turtle

Western pond turtle is found in a wide range of aquatic habitats with emergent structure for basking and feeding. Western pond turtles also use adjacent upland sites for nesting, often traveling up to 0.3 mile over land to reach suitable nesting sites (Stantec 2020b). Habitat for Western pond turtles within the project study area is marginal. There are no CNDDB-reported occurrences of Western pond turtle within 5 miles of the project study area. Aquatic habitat for Western pond turtle is present in pools along Rydberg Creek in and near the project study area. No emergent structures (e.g., emergent snags or rock structures) are present, and potential basking or nesting sites are limited to the banks of Rydberg Creek and adjacent upland areas. Within a 1-mile radius of the project study area, multiple ponds could support Western pond turtle. Downstream of the project study area, portions of Rydberg Creek and Dry Creek may hold water perennially and may also provide suitable habitat for Western pond turtle. Within the project study area, Western pond turtle may use aquatic habitat along Rydberg Creek when water is present, or they can be found in upland habitats basking or nesting.

Because project implementation would involve modification or alteration of the streambed and the stream bank, it has the potential for limited short-term impacts on Western pond turtle. Ground-disturbing activities in the grasslands during establishment of the temporary detour and roadway improvements could affect nest sites and injure Western pond turtles if they are basking or nesting in the project study area. Impacts along the creek during bridge replacement and installation of the low-water crossing associated with the temporary detour would not affect aquatic habitat or turtles using aquatic habitat due to the timing of construction activities during summer months when no water would be present in the creek.

Mitigation Measure BIO-5 (Western Pond Turtle), described below, would be implemented to reduce any impacts on turtles to a less-than-significant impact. Conservation Measure #1 (Erosion and Sedimentation Control) and Conservation Measure #2 (Prevention of Accidental Spills) would be implemented to maintain water quality. Additional protective measures are provided with implementation of Conservation Measure #4 (General Measures for Protection of Special-Status Wildlife Species), as described in Section 2.5. Impacts to Western pond turtle would be mitigated to a less-than-significant impact with implementation of these measures.

Blainville’s Horned Lizard

The project study area is located on the edge of the current known range of Blainville’s horned lizard in the Sierra Nevada foothills (Stantec 2020b). The CNDDB does not have any reported occurrences of the species within 5 miles of the project study area. Annual grasslands and the dry creek bed of Rydberg Creek in the project study area provide habitat for Blainville’s horned lizard. The lizard may be found in burrows and use loose soil in the annual grasslands for burying itself.

Blainville’s horned lizard could be affected by ground-disturbing activities in the project study area associated with establishment of the temporary detour and roadway improvements in annual grasslands (approximately 2.5 acres of impact) and along Rydberg Creek (approximately 0.24 acre of impact). Other activities along the road could impact approximately 1.25 acres of dispersal habitat for the horned lizard. Minimal habitat impacts would occur because the project has been designed to minimize impacts on

native habitats, and the majority of construction activities would take place in previously disturbed areas. Construction equipment and ground-disturbing activities could injure or kill lizards if present in the work area at the time of construction. Destruction of burrows along the temporary detour could inadvertently affect individual lizards if present in the burrows.

Implementation of Mitigation Measure BIO-4 (California Red-Legged Frog and California Tiger Salamander), described below, Conservation Measure #1 (Erosion and Sedimentation Control), Conservation Measure #2 (Prevention of Accidental Spills), and Conservation Measure #4 (General Measures for Protection of Special-Status Wildlife Species), described in Section 2.5, would mitigate impacts to Blainville's horned lizard to a less-than-significant impact.

Western Burrowing Owl, Swainson's Hawk, White-Tailed Kite, and Loggerhead Shrike.

Western burrowing owl is generally found in open grasslands and ruderal agricultural settings throughout the Central Valley. Burrowing owl nests in small mammal burrows or other suitable underground cavities and/or crevices. In the Central Valley, the nesting season for this species occurs between February and August (Stantec 2020b).

In the Central Valley, Swainson's hawk generally nests in isolated stands of trees and along forested edges near open habitats, such as annual grasslands and row crops that provide foraging habitat. The nesting season (i.e., nest building to post-fledging) generally occurs between April 1 and July 30 (Stantec 2020b), but some nesting activity may occur into August.

White-tailed kite generally nests in tall shrubs or trees and is found in a variety of relatively open habitats, such as ruderal agricultural settings, open scrub lands, and grasslands throughout the Central Valley. In the Central Valley, the nesting season for this species occurs between March and August (Stantec 2020b).

Loggerhead shrike is generally found in open grasslands, relatively open woodlands, and ruderal agricultural settings throughout the Central Valley. Loggerhead shrike nests in trees or shrubs and requires barbed-wire fences, thorn bushes, or similar barbed structures nearby for impaling and storing prey items. In the Central Valley, the nesting season for this species occurs between March and August (Stantec 2020b).

Potential habitat for the Western burrowing owl, Swainson's hawk, white-tailed kite, and loggerhead shrike is present within and adjacent to the project study area. The annual grasslands, trees, shrubs, and other substrates (e.g., existing bridge, cavities in rocky outcrops) in and near the project study area provide nesting and foraging habitat for various bird species, such as Swainson's hawk, loggerhead shrike, and white-tailed kite. Burrows in the annual grasslands could provide potential nesting habitat for burrowing owl. The CNDDB does not provide any recorded occurrences of these four special-status bird species within 5 miles of the biological study area (BSA).

Construction activities (e.g., vegetation removal, equipment noise) would be scheduled during the breeding season (generally February through September, depending on the species) and could disturb nesting birds in or adjacent to the project study area. Construction-related disturbance could result in the incidental loss of fertile eggs or nestlings, and/or nest abandonment. The demolition of the bridge may result in the direct removal of nests or affect nesting birds if nests are present in the surrounding vicinity. Ground-disturbing activities associated with new roadway alignment could affect active burrows of

burrowing owl if present. These impacts could adversely affect the local or regional population of special-status or migratory birds. The project could result in approximately 2 acres of temporary impacts and 0.5 acre of permanent impacts to annual grasslands, resulting in a negligible loss of nesting and foraging habitat for various special-status and migratory birds. Extensive grasslands and other habitats would remain in the project vicinity.

Mitigation Measure BIO-6 (Western burrowing owl/Swainson's Hawk/White-Tailed Kite/Loggerhead Shrike), described below, would be used to reduce any impacts on these avian to a less-than-significant impact. In addition, Conservation Measure #1 (Erosion and Sedimentation Control), Conservation Measure #2 (Prevention of Accidental Spills), and Conservation Measure #4 (General Measures for Protection of Special-Status Wildlife Species), described in Section 2.5, would be used to maintain water quality and provide additional protections to natural resources. Impacts to Western burrowing owl, Swainson's hawk, white-tailed kite, or loggerhead shrike would be mitigated to a less-than-significant impact with implementation of these measures.

San Joaquin Kit Fox

The project study area occurs within the current geographic range of the San Joaquin kit fox and is located 5 to 6 miles northeast of the San Joaquin kit fox linkage corridor as shown in the current USFWS 5-Year Review. The nearest extant CNDDB San Joaquin kit fox record is located approximately 5 miles southeast of the BSA (Stantec 2021). This record shows one San Joaquin kit fox observed in 1972 and two observed in 1973. No other recorded sightings occur within a 10-mile radius of the project study area. Critical habitat has not been designated for San Joaquin kit fox. The suitable habitat is fairly contiguous with other linkage habitats within 10 miles, with only the Tuolumne River approximately 4.5 miles south of the project study area possibly presenting a barrier to north–south movement in the linkage corridor. Based on a study that developed a habitat suitability model for the San Joaquin kit fox, moderately suitable habitat occurs north and south of the project study area, but no suitable habitat was identified within the project study area.

No incidental sightings of San Joaquin kit fox, no potential San Joaquin kit fox dens, nor other sign of fox habitation were observed in or within 100 feet of the project study area during the field reconnaissance on May 7-8, 2013, and June 8, 2020. Annual grasslands and blue oak savanna characterize the vegetation communities in the project study area. The annual grasslands are relatively short due to the shallow soils. Blue oaks (*Quercus douglasii*) are scattered and provide an open canopy. Soils in the project study area are composed of gravel and sandy loam with shallow bedrock (4 to 14 inches to bedrock) in the northern and southern portions of the project study area (Stantec 2020a). These soil conditions are not preferred for San Joaquin kit fox dens. The presence of primarily shallow soils in the project study area inhibits opportunities for San Joaquin kit fox to dig dens of sufficient depth to provide cover. In addition, the vegetation height within the annual grasslands in the project study area are relatively short due to the shallow soils. Active, small mammal burrows (e.g., pocket gopher (*Thomomys* sp.)) and ground squirrel (*Spermophilus* sp.) burrows were observed in the project study area and would afford a suitable prey base to attract and support San Joaquin kit fox in the vicinity of the project study area. The habitat present in the project study area would more likely function as foraging and dispersal habitat for the species.

The potential for kit foxes to occur in the project study area is unlikely due to a lack of suitable cover and lack of suitable soils for denning. Additionally, a linkage corridor mapped by USFWS occurs within 5 to 6

miles of the project study area, and the habitat suitability model depicts possible habitat north and south of the project study area. Therefore, a low probability exists that San Joaquin kit fox may move through the project study area or nearby areas.

San Joaquin kit fox is unlikely to occupy the project study area due to the lack of suitable denning habitat. However, due to the proximity of the linkage corridors, a low possibility exists that kit fox migrating along the linkage corridor may venture into the project study area or nearby areas. In the remote chance that a San Joaquin kit fox uses staged materials or equipment for temporary cover, and those materials or equipment are moved while occupied by San Joaquin kit fox, then direct impacts could occur. Project impacts to grassland habitat include approximately 2 acres of temporary impacts and 0.5 acre of permanent impacts, resulting in a negligible loss of grassland habitat for the San Joaquin kit fox. Extensive grasslands and other suitable habitats would remain undisturbed in the vicinity of the project study area.

Mitigation Measure BIO-7 (San Joaquin Kit Fox), described below, would be implemented to reduce any impacts on the species to a less-than-significant impact. In addition, Conservation Measure #1 (Erosion and Sedimentation Control), Conservation Measure #2 (Prevention of Accidental Spills), and Conservation Measure #4 (General Measures for Protection of Special-Status Wildlife Species), described in Section 2.5, would be implemented to provide additional protections to natural resources. Impacts to San Joaquin kit fox would be mitigated to a less-than-significant impact with implementation of these measures.

Pallid Bat/Western Red Bat

The project study area is located within the range of pallid bat and Western red bat; both species could use the habitats in the project study area year-round. Western red bat could roost in tree foliage and pallid bat could roost in rocky outcrops. Although riparian habitat is not present for Western red bat within the project study area, riparian habitat is present along ponds and intermittent streams within 1 mile of the project study area. Pallid bat may also use tree hollows as temporary day roosts. In addition, small seasonal pools and ponds in and near the project study area, Rydberg Creek, and the annual grasslands located in proximity to potential roosting sites provide potential foraging habitat for these species. The existing bridge also has crevices and spaces that could provide roosting habitat for bats. There are no CNDDB reported occurrences for either species within a 5-mile radius of the project study area (Stantec 2020b).

Construction activities could disturb roosting bats in the two trees that may require removal along the road and in other nearby trees. Bridge removal could disturb bats roosting on the bridge, but nighttime foraging activity would not be affected because construction activities would take place during the day. Construction of the project could result in approximately 2 acres of temporary impacts and 0.5 acre of permanent impacts to annual grasslands, resulting in a negligible loss of foraging habitat for bats. Extensive grasslands and other habitats would remain in the vicinity of the project study area.

Mitigation Measure BIO-8 (Special-Status Bats) described below would be implemented to reduce any impacts on these species to a less-than-significant impact. In addition, Conservation Measure #1 (Erosion and Sedimentation Control), Conservation Measure #2 (Prevention of Accidental Spills), and Conservation Measure #4 (General Measures for Protection of Special-Status Wildlife Species), described in Section 2.5, would be implemented to provide additional protections to natural resources.

Impacts to Pallid bat and Western red bat would be mitigated to a less-than-significant impact with implementation of these measures.

American Badger

The project study area is located in the range of American badger. The nearest CNDDB record for American badger is located approximately 5 miles south of the project study area. Annual grasslands in and near the project study area could provide habitat for American badger. Friable soil for burrowing is present in the project study area, although shallow bedrock would likely limit extensive burrowing.

Construction activities would be scheduled during the late-spring and summer months when American badgers are most active and digging new burrows, but badgers would likely leave the area at the start of construction. Establishment of the temporary detour on the south side of Rydberg Creek could disturb or destroy burrows that are used by the badger, but impacts on individuals are unlikely. Approximately 2.5 acres of annual grasslands would be disturbed during construction activities, including 2 acres of temporary impacts and 0.5 acre of permanent impacts, resulting in a negligible loss of burrowing habitat for the badger. Extensive grasslands and other habitats would remain in the vicinity of the project study area.

Mitigation Measure BIO-9 (American Badger), described below, would be implemented to reduce any impacts on these species to a less-than-significant impact. In addition, Conservation Measure #4 (General Measures for Protection of Special-Status Wildlife Species), described in Section 2.5, would be implemented to provide additional protections to natural resources. Impacts to American badger would be mitigated to a less-than-significant impact with implementation of these measures.

Migratory Birds and Raptors

Construction activities (e.g., vegetation removal and equipment noise) would occur during the avian breeding season (generally February through August, depending on the species) and could disturb nesting birds in or adjacent to the project study area. Active cliff swallow nests were observed on the Rydberg Creek Bridge during surveys.

Construction activities (e.g., vegetation removal, equipment noise) would be scheduled during the breeding season (generally February through September, depending on the species) and could disturb nesting birds in or adjacent to the project study area, resulting in the incidental loss of fertile eggs or nestlings or nest abandonment. The removal of two oak trees along Cooperstown Road south of the bridge may be necessary to accommodate the roadway modifications and could affect nesting birds if present in the trees. Construction activities near other trees could also disturb nesting birds. Removal of the bridge could also affect cliff swallow nesting activity. These impacts could adversely affect the local or regional population of special-status or migratory birds. However, less than 2.5 acres of annual grasslands would be disturbed during construction activities, resulting in a negligible loss of nesting and foraging habitat for various special-status and migratory birds. Extensive grasslands and other habitats would remain in the vicinity of the project study area.

The project was designed to minimize removal of native vegetation to the greatest extent practicable. Mitigation Measure BIO-10 (Migratory Birds and Raptors) would be used to reduce any impacts on migratory birds, including raptors, to a less-than-significant impact. Project operation would be consistent with existing conditions and would have no impact on migratory birds and raptors.

b) No Impact

In addition to inventorying reported occurrences of special-status species, the CNDDB serves to inventory locations of rare natural communities. Rare natural communities are those communities that are of highly limited distribution; and they may or may not contain rare, threatened, or endangered species. The CNDDB ranks natural communities according to their rarity and endangerment in California. The CNDDB contains no records of rare natural communities within the project study area. Riparian vegetation is considered a sensitive natural community. However, riparian habitat within the project area is limited to herbaceous species; no riparian trees are present. No other sensitive natural communities occur in the project area. There would be no impact to riparian habitat or other designated sensitive natural communities as a result of the project.

c) Less-than-Significant Impact with Mitigation Incorporated

Stantec conducted a delineation of potential waters of the U.S. in the project area on May 7 and 8, 2013, and June 8, 2017 (Stantec 2020a). A total of 0.279 acre (287 linear feet) of potential waters of the U.S. were mapped within the project study area, which is Rydberg Creek, an intermittent stream. A total of 0.244 acre of wetlands were mapped within the project study area and consists of three herbaceous riparian wetland features (0.013 acre), three seasonal wetlands (0.026 acre), four vernal pools (0.078 acre), and two wetland swales (0.127 acre). Woody riparian vegetation is not present with the project study area.

Potential impacts on waters of the U.S. were calculated based on current design details that are available (Figure 5). Temporary impacts would result from the placement of fill in Rydberg Creek to create the temporary detour for access through the study area while the bridge is replaced. The creek is expected to be dry while the detour is in place, but in the event of rainfall, flow would be maintained in the creek downstream of the detour by a temporary pipe installed parallel to the creek as part of the project. The detour would require temporary placement of fill (i.e., pipe and clean crushed rock) across the creek channel, resulting in temporary impacts on an estimated 20 linear feet (0.019 acre) of the creek. Construction access and bridge removal could also disturb approximately 0.25 acre (220 linear feet) of the creek, but these impacts would be temporary and would not require vegetation removal. Placement of mats or similar devices to protect cultural resources along the creek bed could constitute discharge of fill into the creek.

The new bridge would be 92 feet long and would span Rydberg Creek. Although the bridge abutments would be located outside the creek channel, rock slope protection installed around the abutments may extend into the creek. Placement of rock slop protection could result in the permanent discharge of fill into an area covering approximately 0.032 acre (40 linear feet) of Rydberg Creek. In addition, roadway approach modifications could result in the discharge of asphalt and roadway fill into approximately 0.022 acre of vernal pool (see VP3 in Figure 5). Permanent impacts would result from the placement of rock slope protection, bridge installation, and road improvements within the creek. Temporary impacts would occur from the construction of the temporary, low-water crossing and from equipment and construction access within the channel when it is dry. The project would result in 0.054 acre of permanent impacts and 0.288 acre of temporary impacts. Mitigation Measure BIO-11 (Waters of the U.S.), described below, would be used to reduce any potential impacts on waters to a less-than-significant impact and to compensate for impacts to jurisdictional wetlands and waters.

The loss of vernal pool habitat would be mitigated as a permanent loss of the entire feature. To compensate for the removal of vernal pool and seasonal wetland habitat that provides potential habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp, the County would preserve a minimum 0.807 vernal pool habitat within a California Department of Fish and Wildlife (CDFW)- and USFWS-approved conservation area/mitigation bank, which is a 3:1 ratio for permanent impacts; or Stanislaus county would pay an in-lieu fee into a CDFW- and USFWS-approved fund. The actual number of acres impacted may change based on final project design.

In addition, Conservation Measure #1 (Erosion and Sedimentation Control) and Conservation Measure #2 (Prevention of Accidental Spills), described in Section 2.5, would be implemented to reduce project-related impacts on waters of the U.S. to a less-than-significant impact.

d) Less-than-Significant Impact

No migratory fish are present in Rydberg Creek given its intermittent nature. Construction activities and post-construction use of the proposed bridge replacement would not inhibit wildlife movement. The existing bridge and roadway have been present in the environment for over 50 years; allowing wildlife species to become accustomed its presence. The volume of traffic using the bridge would continue to remain low; consistent with typical use on other bridges in the immediate area. Additionally, the project study area does not encompass any wildlife nursery sites and would have no impact on terrestrial wildlife movement due to the surrounding urban habitat. Operational impacts would be consistent with existing conditions. Conservation Measure #4 (General Measures for Protection of Special-Status Species), provided in Section 2.5, would also be implemented to avoid and minimize impacts to resident wildlife. This impact would be less than significant.

e) No Impact

There are several blue oak trees located within the project study area. There is potential that up to two smaller oak trees may require trimming or removed as they are anticipated to conflict with the proposed eastern approach to the new bridge structure. The project site does not support any riparian trees. Removal of any trees on private or Stanislaus County-owned land does not require any approval as the county does not have a tree preservation ordinance.

f) No Impact

Currently, there are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, nor other approved habitat conservation plans that cover the project area. The project would have no impact on local, regional, or state conservation plans.

VP-1
VP-2
VP-3
WS-1
New Bridge (Permanent)
RW-3
RW-2
Cut Fill Limit (Permanent)
Exisitng Roadway (Permanent)
SW-3
Cooperstown Road
Unnamed Dirt Road
RW-1
IS-1
WS-2
SW-1
SW-2
VP-4
Exisitng Fence
Path (Temporary)
Cut Fill Limit (Temporary)
Rydberg Creek
N

1 inch = 146 feet
0 150 300 Feet
1:1,752 (At original document size of 11x17)

Summary of Project Impacts

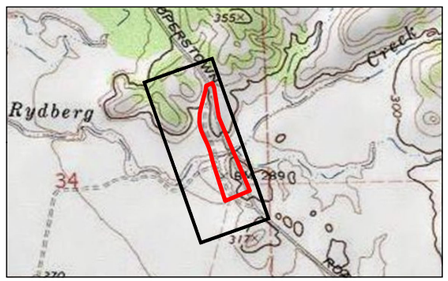
Permanent Impacts

Type	Acres
Roadway Cut/Fill	
Vernal Pool (VP-3)	0.022
Riparian Wetland (RW-1)	<0.001
Placement of Rock Slope Protection	
Intermittent Stream/Riverine Habitat**	*0.032 (40 linear feet)*
Total Permanent Impacts*	***0.054 (40 linear feet)***

Temporary Impacts

Type	Acres
Rydberg Creek Detour Crossing	
Intermittent Stream/Riverine Habitat**	0.240 (250 linear feet)
Roadway Cut/Fill	
Wetland Swale (WS-2)	0.028
Equipment Access Route	
Riparian Wetland (RW-1)	0.006
Riparian Wetland (RW-2)	0.004
Riparian Wetland (RW-3)	0.002
Seasonal Wetland (SW-3)	0.005
Vernal Pool (VP-2)	<0.001
Vernal Pool (VP-3)	0.003
Total Temporary Impacts*	**0.288 (250 linear feet)**

*Temporary and permanent impact acreages associated with other waters (i.e. intermittent stream) and riverine habitat (i.e. habitat community) are presented synonymously in this table as "Intermittent stream/riverine habitat" and included singly in total calcuations. However, wetland acreages have been included in overall annual grassland habitat to avoid double-counting/overlap of the WoUS and Habitat impacts calculations (i.e. vernal pool, seasonal wetland, wetland swale, and riparian wetland impacts).



Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2013.
3. Orthoimagery © First Base Solutions, 20xx.

Biological Study Area (9.44 acres)
Proposed Environmentally Sensitive Areas
Permanent Impact
Temporary Impact
Waters of the United States Outside Biological Study Area

Waters of the United States

Wetlands
Riparian Wetland (0.013 acre)
Seasonal Wetland (0.026 acre)
Wetland Swale (0.127 acre)
Vernal Pool (0.078 acre)

Other Waters
Intermittent Stream
(0.280 acre, 287 linear feet)
OHWM

Habitat Communities
Annual Grassland (7.537 acres)
Riverine (0.280 acre)
Road (1.659 acres)

Stantec

Project Location
Stanislaus County

2272010000
Prepared by L. Morris on 2019-01-08
Technical Review by N. Eide on 2019-01-18
Independent Review by C. Femino on 2019-01-18

Client/Project
Cooperstown Road over Ryberg Creek Bridge (No. 38C0257) Replacement Project

Figure No.
Figure 5

Title
Project Impacts to Wetlands and Waters of the United States

Notes:
1. Detailed topographic contour data unavailable

V:\1857\Active\2272010000\07_Historical\gis_cad\GIS Working_MXDs\1m_working_folder\bio\2272010000_bio_fig4_project_impacts.mxd Revised: 2020-08-11 By: Dalzw

Mitigation Measures

Mitigation Measure BIO-1: Special-Status Plants

- A protocol-level botanical survey will be conducted in 2024 during the blooming periods for potential special-status plant species within the project study area (Colusa grass (*Neostapfia colusana*), Greene's tuctoria (*Tuctoria greenei*), hairy Orcutt grass (*Orcuttia pilosa*), Hoover's spurge (*Chamaesyce hooveri*), and succulent owl's clover (*Castilleja campestris* ssp. *succulenta*)). If no special-status plant species are observed, then no further mitigation is required. If any special-status plant species are located in the project study area, then the following measures will be implemented.

- Any topsoil removed during construction will be stored on-site in piles no higher than four feet to preserve the seed bank and allow development of microorganisms prior to replacing the soil in the construction area. The topsoil piles will be clearly marked and flagged. Topsoil piles that will not immediately be used in the construction area will be revegetated with a non-persistent erosion control mixture.

Timing/Implementation:	Prior to a construction/during construction/post construction
Enforcement:	U.S. Fish and Wildlife Fisheries Service, California Department of Fish and Wildlife, California Department of Transportation
Monitoring:	County and/or its contractor

Mitigation Measure BIO-2: Crotch's Bumble Bee

- A habitat assessment to identify potential foraging and nesting habitat and focused surveys will be conducted for Crotch's bumble bee within the project study area. Surveys should be conducted during flying season when the species is most likely to be detected aboveground, from March 1 to September 1. Survey results, including negative findings, will be submitted to California Department of Fish and Wildlife (CDFW) prior to implementing project-related ground-disturbing activities. At minimum, a survey report should provide the following: 1) a description and map of the survey area, focusing on areas that could provide suitable habitat for Crotch's bumble bee; 2) field survey conditions that include name(s) of qualified entomologist(s) and brief qualifications, date and time of survey, survey duration, general weather conditions, survey goals, and species searched; 3) map(s) showing the location of nests/colonies; and 4) a description of physical (e.g., soil, moisture, slope) and biological (e.g., plant composition) conditions where each nest/colony is found. A sufficient description of biological conditions, primarily impacted habitat, should include native plant composition (e.g., density, cover, and abundance) within impacted habitat (e.g., species list separated by vegetation class; density, cover, and abundance of each species). If no Crotch's bumble bees are observed, then no further mitigation is required. If the species is observed in the project study area, and ground-disturbing activities will occur during the overwintering period (October through February), then the following measures will be implemented.

– If adverse impacts to Crotch's bumble bee cannot be avoided either during project activities or over the life of the project, the County should consult CDFW to determine appropriate avoidance and/or minimization measures for the species.

Timing/Implementation:	Prior to and during construction
Enforcement:	California Department of Fish and Wildlife, California Department of Transportation
Monitoring:	County and/or its contractor

Mitigation Measure BIO-3: Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

Stanislaus County will implement the following measures to minimize construction impacts on vernal pool fairy shrimp and vernal pool tadpole shrimp and their habitat:

- If wetland habitat is avoided (preserved) on-site, then a USFWS-approved biologist will inspect any construction-related activities at the project site to see that no unnecessary take of listed species or destruction of their habitat occurs. The biologist will have the authority to stop all activities that may result in such take or destruction until appropriate corrective measures have been completed. The biologist will also be required to immediately report any unauthorized wetland habitat impacts to USFWS and California Department of Fish and Wildlife (CDFW).
- If wetland habitat is directly impacted on-site, then the topsoil from the wetland will be removed and preserved on-site prior to any ground-disturbing activities. Stockpiles from each wetland will remain separate and identified in such a manner that the originating wetland is clear. During restoration activities, the wetland topsoil will be carefully replaced in the wetland from where it was originally removed.
- Adequate fencing will be placed and maintained around any avoided (preserved) wetland habitat to prevent impacts from vehicles.
- The County will prohibit activities that are inconsistent with the maintenance of the suitability of remaining habitat and associated on-site watershed. This includes, but is not limited to the following:
    - Alteration of existing topography or any other alteration or uses for any purposes, including the exploration for or development of mineral extraction.
    - Placement of any new structures on these parcels.
    - Dumping, burning, or burying rubbish, garbage, or any other wastes or fill materials.
    - Building any new roads or trails not included in the project description.
    - Killing, removing, altering, or replacing any existing native vegetation.
    - Placement of stormwater drains.
    - Fire protection activities not required to protect existing structures at the project site.
    - Use of pesticides or other toxic chemicals.
- To compensate for the removal of vernal pool and seasonal wetland habitat that provides potential habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp, the County will preserve vernal pool habitat within a CDFW- and USFWS-approved conservation area/mitigation

bank at a minimum of 0.807 acre (a 3:1 ratio for permanent impacts) or pay into a CDFW- and USFWS-approved in-lieu fee fund. The actual number of acres impacted may change based on final project design.

Timing/Implementation:	Prior to a construction/during construction/post construction
Enforcement:	U.S. Fish and Wildlife Fisheries Service, California Department of Fish and Wildlife, California Department of Transportation
Monitoring:	County and/or its contractor

Mitigation Measure BIO-4: California Red-Legged Frog and California Tiger Salamander

In the unlikely event that a California red-legged frog or California tiger salamander enters the project area during construction, conservation measures incorporated into the project (i.e., Conservation Measure #1 (Erosion and Sedimentation Control), Conservation Measure #2 (Prevention of Accidental Spills), , Conservation #3 (Prevention of Spread of Invasive Species), and Conservation Measure #4 (General Measures for Protection of Special-Status Wildlife Species) and project-specific mitigation measures described below would serve to avoid or minimize potential impacts on these two species.

- Ground-disturbing activities will be limited to daylight hours, and all clearing and grading activities in the action area will be restricted to the period of April 15 to October 15 in coordination with U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) and will be dependent on the level of rainfall and site conditions.

- A qualified biologist knowledgeable of California red-legged frog and California Tiger Salamander will provide a discussion of these two species during the worker environmental awareness training. The discussion will include how to identify the species, relevant life history and taxonomic information, where the species would be likely to occur in the action area, what to do if the species is observed, and the state and federal laws pertaining to the species.

- No plastic, monofilament, jute, or similar erosion control matting that could entangle California red-legged frog or California Tiger Salamander will be used in the project study area. Possible substitutions include coconut coir matting, tackified hydroseeding compounds, or other materials approved by USFWS.

- No pets or firearms will be permitted in the project study area.

- During all initial ground-disturbing activities, a USFWS-approved biologist will be present to recover and relocate any California red-legged frog or California Tiger Salamander that may be excavated by construction equipment from an underground refuge. If live California red-legged frog or California Tiger Salamander are encountered, construction in the vicinity will stop at the direction of the qualified biologist, and the qualified biologist will immediately relocate the California red-legged frog or California Tiger Salamander to a suitable burrow outside the work area. Consultation with USFWS will need to be re-initiated.

- During rain events and within 24 hours following rain events, a qualified biologist familiar with California red-legged frog and California Tiger Salamander will visually check for federally listed amphibian species, such as California red-legged frog and California Tiger Salamander, in and

around equipment and vehicles prior to resuming work. In addition, construction personnel will keep vehicle speeds within the work area to a minimum to avoid wildlife.

- If federally listed and/or state-listed species are found during construction activities, a qualified biologist will immediately be notified. As warranted, the qualified biologist will notify the USFWS and/or CDFW about the species observed. All construction activities having the potential to injure or harass special-status species or habitat will be immediately stopped. The qualified biologist will evaluate the situation and will have authority to halt any construction activities until appropriate corrective measures have been implemented or it is determined that special-status species will not be harmed. The qualified biologist will remain in the area for the remainder of the workday to make sure the special-status species are not harmed. Any federally listed species encountered during construction activities will be allowed to move away from construction activities on their own. Capture and relocation are not permitted unless specifically approved in advance by USFWS and/or CDFW. Any dead or injured federally listed species or state listed will be immediately reported to the qualified biologist and the USFWS or CDFW, and consultation with USFWS and/or CDFW will need to be re-initiated.

- Stanislaus County will retain a qualified biologist familiar with California red-legged frog and California Tiger Salamander biology and habitat requirements to implement mitigation measures for the project. Stanislaus County will submit the name and credentials of the biologist(s) to USFWS and CDFW for review and approval at least 15 days prior to the onset of construction activities.

- Work areas that are temporarily disturbed will be revegetated with an assemblage of native vegetation suitable for the area.

- To compensate for the permanent removal of 0.441 acre and temporary disturbance of 2.01 acres of annual grassland habitat that provide upland refugia habitat for California tiger salamander, the County will preserve dispersal/refugia habitat within a CDFW- and USFWS-approved conservation area/mitigation bank at a minimum of 3.333 acres (2.01 acres [a 1:1 ratio] for temporary impacts and 1.323 acres [a 3:1 ratio] for permanent impacts) or pay into a CDFW- and USFWS-approved in-lieu fee fund. The actual number of acres impacted may change based on final project design but will not exceed the acreage discussed above.

Timing/Implementation:	Prior to a construction/during construction/post construction
Enforcement:	U.S. Fish and Wildlife Fisheries Service, California Department of Fish and Wildlife, California Department of Transportation
Monitoring:	County and/or its contractor

Mitigation Measure BIO-5: Western Pond Turtle

The following measures will be implemented to avoid or minimize the potential for adverse impacts on Western pond turtle:

- Environmental Awareness Training. Construction personnel training would be conducted by a qualified biologist prior to onset of work to brief them on how to recognize Western pond turtle and other special-status animals (e.g., California red-legged frog and California tiger salamander) that may occur in the project study area.

- Western Pond Turtle Relocation. If Western pond turtles are encountered in the project study area during construction and could be harmed by construction activities, work will stop in the area, and the County will notify California Department of Fish and Wildlife (CDFW). Upon authorization from CDFW, a qualified biologist may relocate the individual(s) the shortest distance possible to a location containing suitable habitat outside of the work area.

  Timing/Implementation: Prior to and during construction
  Enforcement: California Department of Fish and Wildlife, California Department of Transportation
  Monitoring: County and/or its contractor

Mitigation Measure BIO-6: Western Burrowing Owl, Swainson's Hawk, White-Tailed Kite, Loggerhead Shrike

The following measures would be implemented to avoid or minimize the potential for significant impacts on Western burrowing owl, Swainson's hawk, white-tailed kite, and loggerhead shrike. If construction activities, including vegetation clearing, are conducted completely outside of the nesting season (i.e., after September 30 and before February 1), no further measures are necessary. If construction activities occur during the nesting season (i.e., from February 1 to September 30), the following measures will be implemented:

- Because construction activities cannot avoid the breeding season for these bird species, Stanislaus County will retain a qualified biologist to conduct a preconstruction survey within the project study area and within an appropriate distance from the project site boundary, as access is available (e.g., 0.5 mile for Swainson's hawk, 250 feet for Western burrowing owls, and 500 feet for white-tailed kite and loggerhead shrike). The preconstruction survey will be performed between February 15 and September 15, but no more than 10 days prior to the implementation of construction activities (including staging and equipment access).

- If active nests or burrows are found during the preconstruction survey, the County will coordinate additional protection measures with California Department of Fish and Wildlife (CDFW), such as establishment of a buffer around the nest tree or burrow (e.g., typically 0.5 mile for Swainson's hawk nests, 250 feet for active burrows of Western burrowing owls, 500 feet for white-tailed kite and shrike). No construction activity will be conducted within this zone during the nesting season (generally February through August) or until such time that the biologist determines that the nest or burrow is no longer active. The buffer zone will be marked with flagging, stakes, or other means to mark the boundary. All construction personnel will be notified of the existence of the buffer and will avoid entering the buffer during the nesting season.

- If occupied burrows of burrowing owl are identified in the project study area outside the nesting season (September 1 through January 31), a 150-foot no-disturbance buffer will be established around the burrow until the burrow is no longer occupied. Non-invasive techniques may be used to remove owls from the burrow in coordination with CDFW, if necessary, to proceed with construction.

- Information on nesting special-status and migratory birds will be provided during the worker environmental awareness training.

Timing/Implementation:	Prior to and during construction
Enforcement:	California Department of Fish and Wildlife, California Department of Transportation
Monitoring:	County and/or its contractor

Mitigation Measure BIO-7: San Joaquin Kit Fox

Although it is unlikely that San Joaquin kit fox would occupy habitat in the project study area, the following measures will be implemented to provide avoidance of possible impacts on the species:

- A U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW)-approved biologist will survey the project area (including a 200-foot buffer around proposed disturbance) for San Joaquin Kit Fox and potential dens within 30 days prior to start of construction. Surveys will follow the recommendations in the *San Joaquin Kit Fox Survey Protocol for the Northern Range* (USFWS 1999).

- Construction will be stopped in the area where a trapped or injured San Joaquin Kit Fox is discovered until it leaves the area, and consultation with USFWS and CDFW will need to be re-initiated.

- San Joaquin Kit Fox are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored on the construction site overnight will be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe will not be moved until the kit fox has left on its own. If the kit fox remains in the pipe for more than one day, USFWS and CDFW will be contacted for guidance.

- No pets or firearms will be permitted in the project area.

- No rodenticides or herbicides will be used in the project area. This is necessary to prevent primary or secondary poisoning of San Joaquin Kit Fox and the depletion of prey populations on which they depend.

- A representative will be appointed by the County who will be the contact source for any employee or contractor who might inadvertently kill or injure a San Joaquin Kit Fox or who finds a dead, injured, or trapped San Joaquin Kit Fox. The representative will be identified during the employee education program, and their name and telephone number will be provided to the USFWS and CDFW. If necessary, consultation with USFWS and CDFW will be re-initiated.

- In the case of a trapped kit fox, escape ramps or structures should be installed immediately to allow the animal to escape, or the USFWS and CDFW should be contacted for guidance.

- Any contractor, employee, or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin Kit Fox will immediately report the incident to their representative. This representative will contact CDFW immediately in the case of a dead, injured, or entrapped San Joaquin Kit Fox. The USFWS Sacramento Office and CDFW will be notified in writing within three working days of the accidental death or injury to a San Joaquin Kit Fox during project-related

activities. Notification must include the date, time, and location of the incident or the finding of a dead or injured animal and any other pertinent information.

- New sightings of San Joaquin Kit Fox will be reported to the California Natural Diversity Database.

Timing/Implementation:	Prior to a construction/during construction/post construction
Enforcement:	U.S. Fish and Wildlife Fisheries Service, California Department of Fish and Wildlife, California Department of Transportation
Monitoring:	County and/or its contractor

Mitigation Measure BIO-8: Special-Status Bats

The following measures would be implemented to avoid or minimize the potential for significant impacts on pallid bat and Western red bat:

- In coordination with the preconstruction nesting bird survey, a qualified biologist will conduct surveys of suitable roosting locations in and within 250 feet of the BSA to determine whether Western red bats or pallid bats are using them. If the biologist finds evidence of bat roosts, the biologist should attempt to determine which species are present, which features are being used, and for which roosting purpose. If it is determined that roosting bats are not present or are only using the area as a night roost (i.e., no young are present in the roost), no further avoidance and minimizations measures are necessary.

- If Western red bat or pallid bat day roost or maternity roosts are identified during the survey, the County will coordinate with California Department of Fish and Wildlife to determine the appropriate method to remove the roosting structure. Removal of the existing bridge may need to be scheduled before the birthing season for bats (i.e., prior to May 1) or after young bats are able to fly (i.e., after August 31). Removal of active roosts should be conducted in a manner that allows the bats the best opportunity to leave during darker hours to increase their chance of finding new roosts with minimum exposure to predation during daylight.

- Removal of the vegetation may need to be scheduled before the birthing season for bats (i.e., prior to May 1) or after young bats are able to fly (i.e., after August 31). Removal of active roosts should be conducted in a manner that allows the bats the best opportunity to leave during darker hours to increase their chance of finding new roosts with minimum exposure to predation during daylight.

Timing/Implementation:	Prior to construction, during construction, and post construction
Enforcement:	California Department of Fish and Wildlife, California Department of Transportation
Monitoring:	County and/or its contractor

Mitigation Measure BIO-9: American Badger

The following measures would be implemented to avoid or minimize the potential for significant impacts on American badger:

- In coordination with the preconstruction nesting bird survey, a qualified biologist will conduct a preconstruction survey for American badgers will be conducted no more than 10 days prior to construction to help ensure that no badgers are present within the construction area. If present, the County would coordinate with California Department of Fish and Wildlife and identify appropriate measures to avoid impacts during construction activities, such as using non-invasive techniques to encourage badgers to leave the area prior to ground disturbance.

  Timing/Implementation: Prior to construction and during construction
  Enforcement: California Department of Fish and Wildlife, California Department of Transportation
  Monitoring: County and/or its contractor

Mitigation Measure BIO-10: Migratory Birds and Raptors

The following measures will be implemented to avoid or minimize the potential for adverse impacts on nesting migratory birds and raptors:

- Vegetation Removal Prior to Nesting Season. If all necessary approvals have been obtained, potential nesting substrate (e.g., shrubs and trees) that would be removed by the project should be removed before the onset of the nesting season, which is February 1 through September 15, if practicable. This would help preclude nesting and substantially decrease the likelihood of direct impacts.

- Vegetation Removal During the Nesting Season. If vegetation removal and construction activities occur within nesting bird habitat between February 1 and September 30, a qualified biologist would conduct a preconstruction survey no more than 10 days before construction activities begin in that area. If a non-listed bird species nest is found, the buffer would be 250 feet; if a non-listed raptor nest is found, the buffer would be 500 feet—unless a smaller buffer is approved by California Department of Fish and Wildlife (CDFW). The biologist would monitor the nest to see that construction activity would not disturb the reproductive process and to determine when the young have fledged.

- To deter cliff swallows from nesting under the existing bridge, the County will install an exclusionary device (e.g., netting) around the bridge prior to the initiation of the avian breeding season (before February 1) during the same year as bridge work is proposed and after a qualified biologist has determined no nesting activity is present. The exclusionary device will remain in place until August 15 or until the bridge work begins. The exclusionary device will be anchored such that swallows cannot attach their nests to the structure through gaps. If swallows begin building nests on the structure after installation of the exclusionary device, the County will coordinate with CDFW and will remove the nesting material in the presence of a qualified biologist so that there is no destruction of an active nest. Bridge work may be delayed until the nests are no longer active.

  Timing/Implementation: Prior to and during construction
  Enforcement: California Department of Fish and Wildlife, California Department of Transportation
  Monitoring: County and/or its contractor

Mitigation Measure BIO-11: Waters of the U.S.

The following measures would be implemented to reduce construction-related impacts on waters of the U.S.:

- The County will comply with the terms of the Clean Water Act Section 404 permit issued by U.S. Army Corps of Engineers (USACE) and Section 401 water quality certification issued by the Central Valley Regional Water Quality Control Board (RWQCB) for activities involving the discharge of fill material in Rydberg Creek or wetlands. For activity in and along Rydberg Creek, the County will also comply with the terms of a Streambed Alteration Agreement with California Department of Fish and Wildlife (CDFW) (if determined necessary by CDFW) and the water quality certification from the Central Valley RWQCB. Prior to any discharge of dredged or fill material into wetlands and other waters located in the project study area, the required permits and authorizations will be obtained from the respective agencies. All terms and conditions of the required permits and authorizations will be implemented.

- All waters of the U.S. or State that are temporarily affected by project construction will be restored as close as practicable to their original contour and conditions within 10 days of the completion of construction activities.

- The County will design the roadway improvements to avoid direct and indirect impacts on the seasonal wetlands, to the greatest extent practicable, and designate all seasonal wetlands outside the area of permanent impact within the project study area as environmentally sensitive areas (refer to Figure 4 for wetland locations). These areas will be identified on construction drawings and demarcated in the field with flagging and signs identifying the area as off-limits to all personnel, equipment, and ground-disturbing activities. Exclusionary fencing will be installed around wetland features outside of impact areas. In addition, water quality best management practices will be installed around the wetlands (outside the wetland boundaries) in a manner that prevents water, sediment, and chemicals from draining into the features, and all staging, storage, stockpile areas, and off-road travel routes will be located as far as practicable away from the seasonal wetlands.

- Implementation of avoidance and minimization efforts described above would minimize potential adverse effects on seasonal wetlands. Based on the current design drawings, permanent impacts on the wetlands could occur. The County will provide compensatory mitigation in coordination with USACE, USFWS, and CDFW, either through the purchase of mitigation credits from an approved mitigation bank of payment of in-lieu fees to the National Fish and Wildlife Foundation. The specific mitigation ratio will be identified during the consultation process with USACE and will provide at least a 1:1 replacement ratio for impacts to wetlands.

  Timing/Implementation: Prior to, during, and after construction
  Enforcement: U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, Central Valley RWQCB, California Department of Fish and Wildlife
  Monitoring: County and/or its contractor

CULTURAL RESOURCES

V. CULTURAL RESOURCES — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?		**X**		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		**X**		
c) Disturb any human remains, including those interred outside of formal cemeteries?				**X**

Discussion of Impacts

a, b) Less than Significant with Mitigation Incorporated

Cultural resources investigations (i.e., survey and excavation) covered the entire area of potential effect/area of direct impact (ADI) for the project and identified Bridge 38C0257 and sites CA-STA-389/H (P-50-000066) and STA-390/H (P-50-00067) (North State Resources, Inc. 2016; Pacific Legacy 2020, 2023a).

The bridge (38C0257) is listed as a Category 5 bridge by Caltrans and does not meet the criteria for listing on the National Register of Historical Places.

CA-STA-389/H (P-50-000066) is situated on the east bank of Rydberg Creek, immediately adjacent to and partially under the existing bridge. The site classifies as a Native American milling station given the presence of bedrock mortar outcrops, small amount of flaked stone debitage, and lack of other cultural materials such as midden soil, other features, and artifact assemblage of greater size and variability. Based on present evidence, CA-STA-389/H is a surface site, consisting of an expansive bedrock milling complex, without cultural deposits or indications of habitation and residency. The County and Caltrans decided to treat archaeological site CA-STA-389/H (P-50-000066) as eligible for the National Register of Historic Places under criterion D for this project only, pursuant to Stipulation VIII.C.4 of the Section 106 Programmatic Agreement. The Caltrans Cultural Studies Office approved the assumption of eligibility for CA-STA-389/H (P-50-000066) due to a limited potential for effects.

CA-STA-390H (P-50-000067) consists of an abandoned segment of Cooperstown Road and dry-laid stacked stone walls. Cooperstown Road was constructed sometime in the 1850s–1860s, but the segment of road recorded here was bypassed in 1922 when the current bridge over Rydberg Creek was constructed. The walls do not correlate with any known property boundary. With their proximity to the road, they were probably intended to keep travelers on the correct route and/or keep livestock off the road in and around Rydberg Creek. The Historic Resources Evaluation Report concluded that CA-STA-390H (P-50-000067) does not meet any of the criteria for listing in the National Register of Historic Places, and no further management of this resource is required (Pacific Legacy 2021). State Historic Preservation Office concurrence on this determination was issued on March 20, 2024 (FHWA_2024_0202_001).

Physical impacts to archaeological site CA-STA-389/H (P-50-000066) would consist of constructing the new bridge on the existing alignment, constructing a temporary detour on the abandoned segment of old Cooperstown Road to the west of the current bridge, and contouring the road to match the new bridge

elevation. As the majority of CA-STA-389/H was tested and found to have limited information-bearing deposits, there is limited potential that this new construction will impact any intact, information-bearing archaeological deposits. Additionally, the portions of the site within the area of direct impact (ADI) do not contain information-bearing archaeological deposits and are extremely limited in their ability to address any important research issues. Thus, physical disruption of the soils by heavy equipment during construction would not alter this site's ability to address important research themes should information-bearing deposits be present in the remainder of the site outside the ADI. The detour will be, in part, on the alignment of the Old Cooperstown Road (CA-STA-390H). While that alignment may need to be minimally improved, such improvements will not alter any intact, information-bearing deposits.

To ensure that the bedrock milling cupules associated with Site CA-STA-389/H will not be affected by the project, an Environmentally Sensitive Area (ESA) Action Plan would be implemented to avoid impacts to the resources (Pacific Legacy 2023b). *(Due to the confidential nature of cultural resources, specifics of the ESA are addressed in the confidential ESA Action Plan and are available to qualified personnel upon request.)* Implementation of the ESA Action Plan and Mitigation Measure CR-1 (Cultural Resources) will reduce this impact to less than significant .

c) No Impact

Human remains were not identified during the cultural study; however, the potential for encountering human remains during project construction can never be entirely ruled out. State law prescribes protective measure that must be taken if any subsurface human remains are discovered. Conservation Measure #5 (Cultural Resources and Human Remains), described in Section 2.5, was incorporated into the project design to address inadvertent discovery of human remains during project excavation.

Mitigation Measures

In addition to the use of Conservation Measure #5 (Cultural Resources and Human Remains), described in Section 2.5, the following mitigation measures will be implemented:

Mitigation Measure CR-1: Cultural Resources

- Per Caltrans Exhibit 5.1 in Volume 2 of the Standard Environmental Reference, "it is Caltrans' policy to avoid cultural resources whenever possible. If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. Additional survey will be required if the undertaking changes to include areas not previously surveyed." Per Attachment 4 of the Section 106 Programmatic Agreement, isolated prehistoric or historic finds of fewer than three items per 100 square meters are properties exempt from evaluation.

- A Native American monitor will be present during all project ground disturbance.

  Timing/Implementation: During construction
  Enforcement: Native American Heritage Commission and County
  Monitoring: County and/or its contractor and the Native American Heritage Commission

ENERGY

VI. ENERGY — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?				**X**
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency				**X**

Discussion of Impacts

a, b) No Impact

It would be necessary to use diesel-powered equipment during project construction. This would not be considered wasteful, inefficient, or unnecessary consumption of energy resources. The bridge replacement project will comply with state and Stanislaus County plans for energy efficiency.

Mitigation Measures

No project-specific mitigation is required under this subject.

GEOLOGY AND SOILS

VII. GEOLOGY AND SOILS — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?			**X**	
ii) Strong seismic ground shaking?			**X**	
iii) Seismic-related ground failure, including liquefaction?			**X**	
iv) Landslides?			**X**	
b) Result in substantial soil erosion or the loss of topsoil?			**X**	
c) Be located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?			**X**	

VII. GEOLOGY AND SOILS — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?				**X**
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				**X**
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		**X**		

Discussion of Impacts

a, i-ii) Less-than-Significant Impact

The project area is not located within an Alquist-Priolo Earthquake Fault Zone (California Geological Survey 2021). Even though the project area is distant from known, active faults, very infrequent earthquakes could still cause strong ground shaking (California Geological Survey 2016; USGS 2021). To ensure that potential seismically induced hazards do not affect the replacement bridge, the project would be engineered to account for the seismic activity known to occur in the area. The project would have a less-than-significant impact with respect to exposing people or structures to potential substantial adverse effects from seismic ground shaking.

iii) Less-than-Significant Impact

Based on the soil and groundwater conditions encountered during test borings for the preliminary foundation study, it was determined that underlying earth materials at the project site are not susceptible to liquefaction (Crawford & Associates, Inc. and Taber 2020). Thus, the potential impacts related to exposing people or structures to potential substantial adverse effects from liquefaction are considered to be less than significant.

iv) Less-than-Significant Impact

The topography of the project area is relatively flat, with the exception of the banks of Rydberg Creek. Therefore, the project area has low susceptibility to landslides. The project would have a less-than-significant impact with respect to exposing people or structures to potential substantial adverse effects from landslides.

b) Less-than-Significant Impact

Project construction would be necessary within Rydberg Creek. Vegetation clearing, construction equipment access, and re-contouring of the creek bed and banks would expose soils. Erosion and sedimentation into downstream waters could result if runoff were to occur during construction. Also, grading activities could increase the potential for erosion during rain or wind events, which would be a significant impact. Pursuant to the Clean Water Act, the County is required to obtain a National Pollution Discharge Elimination System Phase II permit from the Central Valley Regional Water Quality Control Board. To obtain this permit, the County would prepare a Stormwater Pollution Prevention Plan

(SWPPP). The SWPPP will include BMPs to reduce erosion during project construction and minimizes sedimentation down gradient from the project. Implementation of these BMPs and Conservation Measure #1 (Erosion and Sedimentation Control), described in Section 2.5, would be used during construction to minimize the potential for erosion pre- and post-construction. The potential for soil erosion and loss of topsoil as a result of project implementation would be less than significant.

c) Less-than-Significant Impact

The project is underlain by gravel, sand, silt, and clay (Crawford & Associates, Inc. and Taber 2020). Soils in the project area are stable and would not become unstable as a result of the project. The project would be engineered to account for the possibility of on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse. The project area does not have a significant potential for landslides according to the California DOC (California Geological Survey 2016) or by the Stanislaus County General Plan. The potential for site instability would be less than significant.

d) No Impact

Expansive soils are defined as those soils with a plasticity index of 15 percent or greater. Soil unit types within the project area do not exceed a plasticity index of 0 percent. The project area is underlain by non-expansive soils with a low shrink/swell potential (Natural Resources Conservation Service 2023). Furthermore, work outside of the existing road corridor would be temporary and the project constructed within the existing road corridor would be consistent with Caltrans Design Specifications. As such, there is no potential for expansive soils that would be substantial risks to life or property, and there is no impact.

e) No Impact

The project does not involve septic or wastewater systems.

f) Less than Significant with Mitigation Incorporated

The geology of the project area consists largely of the Modesto formation with a minor amount of the Ione formation present (Marchand et. al 1981). Both formations are known to contain fossils in Stanislaus County or nearby Merced, Mariposa, and Tuolumne Counties. The Ione formation is known to contain marine invertebrate fossils, but occurrence is rare in the region (Allen 1929, Bartow 1992). The Modesto formation is known to contain terrestrial vertebrate fossils from the Pleistocene age within the region. A records search of the University of California's Museum of Paleontology collections database revealed several vertebrate fossil localities present in the Modesto formation found in Stanislaus and Merced counties. Specimens found at these localities included Giant Bison (*Bison latifrons*) and several specimens of Camel (*Camelops*).

While no known paleontological resources occur within the project area, the regional occurrence of Pleistocene vertebrate fossils within the Modesto formation suggests that there is potential for uncovering fossil remains during project-related earthmoving activities. Substantial damage to, or degradation of unique paleontological resources would represent a significant impact. Implementation of Mitigation Measure GEO-1 (Paleontological Resources) would address potential direct or indirect impacts to unique paleontological resources and reduce those impacts to less than significant .

Mitigation Measures

In addition to the use of Conservation Measure #1 (Erosion and Sedimentation Control), described in Section 2.5, the following mitigation measure will be implemented:

Mitigation Measure GEO-1: Paleontological Resources

- If paleontological resources are discovered during project construction, all ground-disturbing activities within 50 feet of the discovery site will stop until a qualified paleontologist can assess the significance of the find and recommend appropriate treatment. If found to be significant and project activities cannot avoid the paleontological resources, a paleontological evaluation and monitoring plan will be implemented. Impacts to paleontological resources will be mitigated, which may include monitoring, data recovery and analysis, a final report, and the accession of all fossil material to a paleontological repository. Upon completion of project ground-disturbing activities, a report documenting methods, findings, and recommendations will be prepared and submitted to the paleontological repository. Stanislaus County will be responsible for ensuring that recommendations regarding treatment are implemented.

  Timing/Implementation: During construction
  Enforcement: County
  Monitoring: County and/or its contractor

GREENHOUSE GAS EMISSIONS

VIII. GREENHOUSE GAS EMISSIONS — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			**X**	
b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			**X**	

Discussion of Impacts

a) Less-than-Significant Impact

GHGs are recognized by wide consensus among the scientific community to contribute to global warming/climate change and associated environmental impacts because of their ability to trap heat in the atmosphere and affect climate. The major GHGs that are released from human activity include carbon dioxide, methane, and nitrous oxide (Governor's Office of Planning and Research 2008, 2018). The primary sources of GHGs are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (such as dairies and hog farms).

Long-Term Operational Emissions

The project would replace the existing bridge with a new two-lane bridge that meets American Association of State Highway and Transportation Officials standards. Since the project would not increase

the travel lane capacity or alter the speed limits along Cooperstown Road, long-term GHG emissions are not expected to increase as a result of the project.

Short-Term Construction Emissions

Emissions of GHGs from the project would be generated off-site from the production of materials used for the bridge and on-site construction-related equipment emissions. Emissions of GHGs resulting from off-road, heavy-duty diesel engines during construction activities would be short term and minor. Implementing Mitigation Measure AQ-1 (Air Quality/Dust Control) and Conservation Measure #6 (Greenhouse Gas Emissions), described in Section 2.5, would reduce GHG emissions. These measures would be incorporated into the project design and would be used during construction to so that project-related impacts would remain less than significant.

b) Less-than-Significant Impact

The State of California has adopted several regulations related to GHG emissions reduction. These include efforts to reduce tailpipe emissions and diesel exhaust produced by fuel-combustion engines. Operation of the project would not generate increased traffic levels as it is not increasing capacity. Additionally, project construction would adhere to statewide efforts aimed at minimizing GHG emissions and would not conflict with any applicable plans, policies, or regulations adopted for reducing the emission of GHGs. The project would have a less-than-significant impact.

Mitigation Measures

Mitigation Measure AQ-1 (Air Quality/Fugitive Dust), and Conservation Measure #6 (Greenhouse Gas Emissions), described in Section 2.5, would be implemented, if necessary. No project-specific mitigation is required under this subject.

HAZARDS AND HAZARDOUS MATERIALS

IX. HAZARDS AND HAZARDOUS MATERIALS — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		**X**		
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		**X**		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				**X**
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				**X**

IX. HAZARDS AND HAZARDOUS MATERIALS — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) For a project located within an airport land use compatibility plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				**X**
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			**X**	
g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			**X**	

Discussion of Impacts

a, b) Less-than-Significant Impact with Mitigation Incorporated

Project construction and operation would not routinely generate any hazardous materials. Project operation would not involve the use or storage of any hazardous materials. Although construction would not generate any hazardous materials, a potential hazard to the public and the environment would be posed by the use of diesel- or gasoline-powered construction equipment (e.g., trucks, excavators) and lubricants, such as oil and hydraulic fluids. The potential for such hazards would be temporary since equipment would be routinely maintained and inspected to avoid leaks, and this is similar to the impacts associated with the vehicles operating daily on nearby roads. BMPs provided in Conservation Measure #2 (Prevention of Accidental Spills), described in Section 2.5, would further reduce the potential impacts associated with the accidental spills of pollutants (e.g., fuel, oil, grease) during construction and operation. The potential for the accidental spill of pollutants would be less than significant.

Naturally Occurring Asbestos

Taber Consultants (now Crawford & Associates, Inc) conducted an Initial Site Assessment (ISA) for the project (Taber 2014). Geologic mapping was reviewed, and a site reconnaissance conducted to determine the likelihood of naturally occurring asbestos (NOA) in the study area. No ultramafic rock units have been identified in the published mapping, and no outcrops likely to contain NOA or rock fragments were observed in the study area. No indications of a recognized environmental condition (REC) with respect to NOA were observed at the project site.

Aerially Deposited Lead

The project site history was reviewed to determine likelihood of aerially deposited lead (ADL) in the study area. Due to the low traffic history of Cooperstown Road, an REC with respect to ADL in the study area was not identified.

Asbestos-Containing Materials

No clear uses of asbestos in construction materials, such as bridge pads or shims, were observed in the study area; however, samples were not collected to verify the presence or absence of asbestos. Authority

to enforce the federal asbestos National Emissions Standards for Hazardous Air Pollutants regulations (NESHAP, 40 CFR Part 61, Subpart M) in Stanislaus County has been delegated to the SJVAPCD. Federal regulations require a Certified Asbestos Consultant assess the presence of asbestos in building materials. The SJVAPCD requires that the Certified Asbestos Consultant assessment be included in the written notification of demolition of structures or renovation operations at least 10 business days prior to commencing work, regardless of the presence or absence of asbestos in building materials. Therefore, the County will conduct testing for the presence or absence of asbestos in the bearing pad prior to construction. If asbestos is found in the bearing pad of the bridge structure, then implementation of Mitigation Measure HAZ-1 (Asbestos-Containing Building Material) would be used during construction to reduce impacts to less than significant.

Lead-Based Paint

As part of the ISA investigation, paint samples were collected from the bridge and sent out for laboratory analysis. Laboratory analysis indicated that orange and black painted surfaces of the bridge are below the regulatory threshold of 50 mg/kg total lead. These paints are classified as nonhazardous by the California Department of Toxic Substances Control (DTSC) and require no special handling. During the course of the ISA investigation, no REC with respect to lead concentrations in painted surfaces of the bridge were identified. Likewise, soils below the bridge would not be expected to have leached lead concentrations exceeding the regulatory threshold from the overlying bridge paint and would not require special handling (Taber 2014).

c) No Impact

The nearest school (La Grange Elementary School) is located over 5 miles southeast of the project area. There are also no new schools proposed within 0.25 mile of the project site. The project would have no impact relating to release of hazardous materials near a school.

d) No Impact

Review of the California DTSC EnviroStor database (California Department of Toxic Substances Control 2023) and the State Regional Water Quality Control Board's GeoTracker database (SWRCB 2023) did not identify any know hazardous waste sites within the project area. There is no record of any known contaminated sites, regulated landfill sites, or hazardous waste generators in the project vicinity on file with the County Environmental Health Department. The project area is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. No potential hazardous materials or waste sites are listed in the project vicinity.

e) No Impact

The project is not located near any public or private airport or airstrip. No impact related to proximity to an airport or airstrip would occur.

f) Less-than-Significant Impact

During construction of the replacement bridge, the existing bridge would be closed to vehicular access through the project area. Due to the low ADT (approximately 50 vehicles per day) and long detour on County roads (approximately 20 miles), traffic would use a temporary detour adjacent to the existing Cooperstown Road. The project is not anticipated to impair implementation of, or physically interfere with,

an adopted emergency response plan or emergency evacuation plan because vehicular access would be maintained through the temporary detour during construction. The project would have a less-than-significant impact.

g) Less-than-Significant Impact

Natural land cover in the undeveloped areas is primarily annual grassland, dominated by weedy species. Based on current mapping, the fire hazard potential of lands in the project area is mapped as having "high" fire hazard potential by the U.S. Department of Agriculture (2023) and is not mapped as a fire risk according to the California Public Utilities Commission Fire-Threat Map (California Public Utilities Commission 2020). The project activities, including a bridge replacement, would not exacerbate fire risks or result in ongoing impacts to the environment. Therefore, the project would have no impact. The use of construction equipment in and around vegetated areas increases the potential for wildfire ignition. However, Conservation Measure #7 (Wildfire Potential), described in Section 2.5, will further reduce the risk of wildfire associated with project construction. The potential for accidental wildfire ignition during construction would be less than significant. Project operation would be consistent with existing conditions and would not increase the potential for wildfire ignition.

Mitigation Measures

In addition to the use of Conservation Measure #2 (Prevention of Accidental Spills and Conservation) and Conservation Measure #7 (Wildfire Potential), described in Section 2.5, the following mitigation measure will be implemented.

Mitigation Measure HAZ-1: Asbestos-Containing Building Material

The County will include provisions in the construction bid documents for proper removal and disposal of asbestos-containing building material found on the existing bridge. The following measures will be implemented to reduce construction-related environmental impacts that could result from asbestos removal:

- Prior to the start of construction, the existing bridge's building material will be assessed for asbestos by a Certified Asbestos Consultant at least 10 business days prior to commencing work. If present, asbestos-containing building material will be removed using one of several methods approved by the Federal Environmental Protection Agency and California Occupational and Safety Hazard Administration (Cal OSHA), at the contractor's discretion. Acceptable methods include wet scraping or the use of a dustless needle gun connected to a vacuum unit with a HEPA (high-efficiency particulate air) filter that empties directly into a waste container. The waste container will be properly documented and disposed of at a Class I landfill, such as the Clean Harbors Buttonwillow, LLC, facility in Buttonwillow, California, (CAD980675276) or the Chemical Waste Management, Inc., Kettleman facility in Kettleman, California (CAT000646117).

  Timing/Implementation: During construction
  Enforcement: County, San Joaquin Valley Unified Air Pollution Control District, Federal Environmental Protection Agency, Cal OSHA
  Monitoring: County and/or its contractor

HYDROLOGY AND WATER QUALITY

X. HYDROLOGY AND WATER QUALITY — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?			**X**	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				**X**
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;			**X**	
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;			**X**	
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			**X**	
iv) impede or redirect flood flows?			**X**	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				**X**
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				**X**

Discussion of Impacts

a) Less-than-Significant Impact

A water quality technical memorandum, which details the existing hydrological and water quality characteristics of the project area, has been prepared for the project (North State Resources, Inc. 2014). The project falls under several laws and regulations that relate to water quality and discharge requirements. These include the CWA, the Porter-Cologne Water Quality Control Act, and regulations under the State Water Resources Control Board and the Regional Water Quality Control Board. At this time, there are no known water quality assessments of Rydberg Creek (North State Resources, Inc. 2014). There is also no gauge data available regarding pathogens, nutrients, or sediment. As such, Rydberg Creek is not considered impaired under CWA Section 303(d). Project construction associated with the new bridge, road improvements, and the demolition of the old bridge would require ground-disturbing activities in and adjacent to Rydberg Creek. Construction and staging areas would be disturbed by vehicles and various construction-related activities that would make these areas susceptible to erosion by stormwater runoff. Additionally, the project would include the use of fuels and lubricants to operate construction equipment and other machinery, solvents, paints, and other hazardous materials. Accidental

spills or leaks of construction-related hazardous materials could discharge into the creek, resulting in adverse water quality impacts. However, adverse effects from stormwater runoff or hazardous material spills are not expected to occur. Water quality objectives would be met through adherence to construction provisions, precautions, and stipulations as described in the National Pollutant Discharge Elimination System permit, Section 404 CWA permit, Section 401 CWA Water Quality Certification, and Section 1602 Streambed Alteration Agreement. The County would require the contractor to prepare and implement a SWPPP to reduce or minimize discharge of pollutants from construction activities These measures, along with the implementation of Conservation Measure #1 (Erosion and Sedimentation Control) and Conservation Measure #2 (Prevention of Accidental Spills), would reduce potential impacts relating to quality standards or waste discharge requirements to a level considered less than significant.

b) No Impact

Construction and operation of the project would have no effect on groundwater supplies. There would be no net change in local aquifers or the local groundwater table as a result of the project.

c i-iv) Less-than-Significant Impact

Construction activities associated with the project are not anticipated to permanently alter the existing drainage pattern of the site or area in a way that would result in downstream erosion or sedimentation. Ground-disturbing activities that would occur during project construction would result in temporary alteration to local drainage patterns in the project area and may temporarily alter erosion rates. A SWPPP would be implemented as part of the project and would include BMPs which would help ensure that there are no significant impacts resulting from erosion. Construction of the bridge would only occur when Rydberg Creek is dry, negating any need for stream diversion during project construction. This would result in a less-than-significant impact.

The project would not substantially alter the existing surface or instream drainage patterns of the project area. The new larger and wider bridge structure and roadway approaches would slightly increase the amount of impervious surface in the project area but would not require any new stormwater or drainage facilities, as the runoff would continue to flow into Rydberg Creek. The amount of additional stormwater runoff created from the project would not generate flooding in Rydberg Creek or nearby areas, resulting in a less-than-significant impact on drainage patterns or flooding.

The new larger and wider bridge structure and roadway approaches would increase the amount of impervious surface in the project area resulting in a slight, but less-than-significant increase in stormwater runoff and the potential for polluted runoff (e.g., lubricants), but would not exceed existing or proposed drainage facility capacities routed to Rydberg Creek. All areas of project construction disturbance would be restored to natural conditions.

Avila & Associates completed a Preliminary Hydraulic Study for the project (Avila & Associates 2020). The project is not located within a regulatory floodway or within a base floodplain (FEMA 2008). This study used hydraulic modeling based on a HEC-RAS1 model version 5.0.7 to estimate the water surface elevation (WSE) for the existing and proposed bridge. Results indicate that after construction of the new bridge, the water surface elevation would be lowered approximately 0.6 foot upstream and unchanged downstream from the bridge. With a proposed minimum soffit elevation of 288.9, there would be approximately 6.8 feet of freeboard over the 50-year WSE of 303.5, approximately 2.6 feet of freeboard over the 100-year WSE of 282.1, and approximately 6.5 feet of freeboard over the 100-year WSE of

282.4. The proposed bridge would improve the hydraulics because it would be approximately 32 feet longer than the existing bridge. The existing channel would be widened with the removal of two existing piers within the channel, the existing abutments, and fill. The proposed abutments would be aligned with the flow. The project would have no impact with respect to these issues.

d) No Impact

Because the project area is not near any large bodies of water, there is no risk of inundation from seiches or tsunamis. Because the project area is not located in a mountainous region, there is no risk of inundation from mudflows. The project would have no impact with respect to these issues.

e) No Impact

Construction and operation of the project would not conflict with nor obstruct implementation of a water quality control plan or sustainable groundwater management plan. This includes the Water Quality Control Plan for the Central Valley Region (Central Valley RWQCB 2019).

Mitigation Measures

Conservation Measure #1 (Erosion and Sedimentation Control) and Conservation Measure #2 (Prevention of Accidental Spills), described in Section 2.5, will be used if necessary. No project-specific mitigation is required under this subject.

LAND USE AND PLANNING

XI. LAND USE AND PLANNING — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Physically divide an established community?				**X**
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				**X**

Discussion of Impacts

a) No Impact

The proposed bridge would replace the existing bridge over Rydberg Creek. Residents primarily use Cooperstown Road to access properties. The project would not divide a community. While there may be minor delays to traffic passing along Cooperstown Road during construction, the temporary detour would allow access through the project area. For these reasons, the project would have no impact with respect to physically dividing an established community.

b) No Impact

The project would not require any changes to land uses or zoning and would not conflict with the Stanislaus County General Plan or Zoning Ordinances. The project would not conflict with any applicable conservation plans.

Mitigation Measures

No project-specific mitigation is required under this subject.

MINERAL RESOURCES

XII. MINERAL RESOURCES — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state?				**X**
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				**X**

Discussion of Impacts

a, b) No Impact

According to the Stanislaus County General Plan (2015), which relies upon the State Division of Mines and Geology report, Mineral Land Classification of Stanislaus County, California (Special Report 173), sand and gravel deposits constitute the only commercially significant extractive mineral resources in the region. No such deposits exist at or near the project area; therefore, the project would have no impact to mineral resources. No locally important mineral resource recovery sites are located within the project site. Project implementation would not result in the loss of availability of a valuable mineral resource.

Mitigation Measures

No project-specific mitigation is required under this subject.

NOISE

XIII. NOISE — Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			**X**	
b) Generation of excessive groundborne vibration or groundborne noise levels?			**X**	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				**X**

Discussion of Impacts

a) Less-than-Significant Impact

Stanislaus County Code 10.46.060 (Specific noise source standards) states that for construction equipment:

> "No person shall operate any construction equipment so as to cause at or beyond the property line of any property upon which a dwelling unit is located an average sound level greater than seventy-five decibels between the hours of seven p.m. and seven a.m."

Equipment used during construction activities is expected to temporarily generate noise at and near the project area, causing a temporary increase in ambient noise levels immediately adjacent to the project area. Table 3, below, shows typical noise emission levels from common construction equipment (Federal Transit Administration 2006). The three loudest pieces of equipment that are likely to operate at the same time include a jackhammer, a grader, and a truck. The combined maximum noise level for this equipment is 92 A-weighted decibels (dBA) at a distance of 50 feet. The nearest residence is approximately 0.5 mile (about 2,640 feet) to the southeast of the project area. This distance would substantially reduce the level of construction noise reaching the residence. Noise generated from a point source, such as construction equipment, typically attenuates at a rate of 6 dBA per doubling of distance over hard surfaces (Federal Highway Administration 2011). The maximum noise level reaching the nearest residence would be approximately 56 dBA. This is well below the noise level restriction set in the Stanislaus County Code for construction equipment operation.

In addition, the Noise Element of the Stanislaus County General Plan contains records of average daily noise levels for two locations near the project area. Average daily noise levels were recorded to be 68 dBA (about 30 feet to center of State Route 132) and 75 dBA (about 50 from centerline of State Route 120) at the two long-term monitoring locations closest to the project area (Stanislaus County 2015). The maximum noise level reaching the nearest residence would be well below both of these average daily noise levels.

Because the noise levels reaching the nearest residence is both well below both the noise level restriction set in the Stanislaus County Code for construction equipment operation and the known average daily noise levels in the general location of the project, the project would have a temporary less-than-significant impact with respect to construction noise.

After construction, the project would not increase noise levels because it would not include any new noise sources or new land uses that would generate additional vehicle trips, nor would the project change the volume or type of vehicles using Cooperstown Road. Therefore, the project would have no impact with respect to permanent noise increases.

Table 3. Construction Equipment Noise Emission Levels

Equipment	Typical Noise Level (dBA) 50 feet from Source
Air Compressor	81
Backhoe	80
Ballast Equalizer	82
Ballast Tamper	83
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane Derrick	88
Crane Mobile	83
Dozer	85
Generator	81
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	85
Paver	89
Pile Driver (Impact)	101
Pile Driver (Sonic)	96
Pneumatic Tool	85
Pump	76
Rail Saw	90
Rock Drill	98
Roller	74
Saw	76
Scarifier	83
Scraper	89
Shovel	82
Spike Driver	77
Tie Cutter	84
Tie Handler	80
Tie Inserter	85
Truck	88

Source: Transit Noise and Vibration Impact Assessment (Federal Transit Administration 2006)

b) Less-than-Significant Impact

Construction activities associated with the operation of heavy equipment may generate localized groundborne vibration. Vibration from non-impact construction is generally below the threshold of perception when the activity is more than 50 feet from the receptor. Additionally, vibration from these activities would be temporary, ending when construction is completed. Because construction activity is not anticipated to involve high-impact activities (e.g., pile driving) and because the nearest residence is over 50 feet from on-site construction activity, the vibration impact of construction activities is considered less than significant.

c) No Impact

The project is not located in the vicinity of an airport or landing strip. No impact related to an airport or landing strip would occur as a result of the project.

Mitigation Measures

No project-specific mitigation is required under this subject.

POPULATION AND HOUSING

XIV. POPULATION AND HOUSING — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				**X**
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				**X**

Discussion of Impacts

a) No Impact

Replacement of the existing Rydberg Creek Bridge structure would have no effect on population or housing in the vicinity of the project area. It would improve traffic safety on Cooperstown Road where it crosses Rydberg Creek and would not increase traffic capacity or extend road access beyond what is available without the project. Therefore, the project would have no impact related to inducing population growth.

b) No Impact

Existing housing in the vicinity of Cooperstown Road near Rydberg Creek would not be displaced by the project, and no replacement housing would be required.

Mitigation Measures

No project-specific mitigation is required under this subject.

PUBLIC SERVICES

XV. PUBLIC SERVICES — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?				**X**
Police protection?				**X**
Schools?				**X**
Parks?				**X**

XV. PUBLIC SERVICES — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Other public facilities?				**X**

Discussion of Impacts

a) No Impact

The project would not cause substantial adverse physical impacts on government facilities or negatively affect fire/police protection, schools, parks, or public facilities. The project would also provide an improved, safer road and bridge across Rydberg Creek. Therefore, the project would have no impact on public resources. No significant adverse impacts on service ratios, response times, or service objectives for any of the public services are anticipated.

Mitigation Measures

No project-specific mitigation is required under this subject.

RECREATION

XVI. RECREATION — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				**X**
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				**X**

Discussion of Impacts

a) No Impact

The project would replace an existing bridge and would not result in increased use of existing local or regional parks, or other recreational facilities as there are no such facilities located near the project site.

b) No Impact

The project would not construct or expand recreational facilities; therefore, no impact would occur.

Mitigation Measures

No project-specific mitigation is required under this subject.

TRANSPORTATION/TRAFFIC

XVII. TRANSPORTATION/TRAFFIC — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?				**X**
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?				**X**
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				**X**
d) Result in inadequate emergency access?			**X**	

Discussion of Impacts

a) No Impact

The project is not anticipated to substantially increase either the number of vehicle trips, volume-to-capacity ratio, or congestion at intersections along Cooperstown Road. The project is consistent with the goals and policies of the County's General Plan.

b) No Impact

The project consists of a bridge replacement, with the new bridge being slightly wider and longer than the existing bridge. Cooperstown Road at the bridge site would remain open for the duration of construction via the temporary detour adjacent to the existing bridge that would be installed. Therefore, the project would not conflict with Section 15064.3, subdivision (b).

c) No Impact

The project would not result in the creation of sharp curves, dangerous intersections, or incompatible uses. The project is designed to provide a slightly wider, safer bridge crossing Rydberg Creek.

d) Less-than-Significant Impact

During construction of the replacement bridge, traffic would be routed through the temporary detour. Although temporary, short-duration disruptions to normal traffic operation may occasionally occur during project construction. However, Cooperstown Road would remain open to traffic during construction, and the County would notify emergency service providers of the project and the detour prior to construction. The project would have a less-than-significant impact on emergency vehicle access.

Mitigation Measures

No project-specific mitigation is required under this subject.

TRIBAL CULTURAL RESOURCES

XVIII. TRIBAL CULTURAL RESOURCES — Would the project: cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				**X**
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				**X**

Discussion of Impacts

a) No Impact

There are no tribal cultural resources listed or eligible for listing on the California Register of Historical Resources or in a local register of historical resources as defined in PRC section 5020.1(k).

b) No Impact

In accordance with PRC sections 5024.1, 5097.94, 21074, and 21080.3, commonly known as Assembly Bill 52, the County sent notification letters and a map via mail and email to the Native American tribes who may have knowledge of cultural resources in the area of potential effect on four separate occasions: April 5, 2013; October 30, 2019; July 22, 2022; and March 8, 2023. The following tribes were contacted based on a list of tribes provided by the NAHC: Calaveras Band of Mi-Wuk Indians, California Valley Miwok Tribe, North Valley Yokuts Tribe, Southern Sierra Valley Mi-wuk Nation, Tule River Indian Tribe, and Tuolumne Band of Me-Wuk. Follow-up phone calls were made to tribal representatives. Two tribes asked to be kept informed of the project, requested copies of final documents, and asked to be notified if human remains are found during project construction.

Additionally, NAHC conducted three separate reviews of its Sacred Lands database for culturally significant properties and responded on April 4, 2013; October 10, 2019; and July 22, 2022. Each time, they indicated that the Sacred Lands File contained no records of Native American cultural resources in the immediate area, and no tribal cultural resources were identified in the project area. Project construction and operation would have no impact on tribal cultural resources.

Mitigation Measures

No project-specific mitigation is required under this subject.

UTILITIES AND SERVICE SYSTEMS

XIX. UTILITIES AND SERVICE SYSTEMS — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				**X**
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				**X**
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				**X**
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			**X**	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			**X**	

Discussion of Impacts

a) No Impact

Since there are no existing utilities located within the project area of impact, there would be no impact associated with relocation of utilities.

b) No Impact

No new or expanded water entitlements would be required for the project.

c) No Impact

The project does not involve any actions that would generate wastewater.

d) Less-than-Significant Impact

Construction activities associated with the project could generate solid waste in the form of demolished materials, metal pilings, and other trash. Nonhazardous solid waste generated at the project site would be disposed at a suitable facility, such as the Fink Road Sanitary Landfill located in Crows Landing, approximately 50 miles southwest of the project area. The project is not likely to generate solid waste in amounts that would adversely affect the existing capacity of the local landfill. The contractor would be responsible for removing the existing bridge from the site. This impact is expected to be less than significant.

e) Less-than-Significant Impact

Any solid waste generated by the project would be disposed of at an approved landfill in compliance with local, state, and federal regulations pertaining to solid waste disposal. This impact is expected to be less than significant.

Mitigation Measures

No project-specific mitigation is required under this subject.

WILDFIRE

XX. WILDFIRE — Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				**X**
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			**X**	
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			**X**	
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				**X**

Discussion of Impacts

a) No Impact

During project activities, Cooperstown Road at the bridge site would remain open for the duration of construction via an adjacent temporary detour. The project would not impair implementation of, nor physically interfere with, an adopted emergency response plan or emergency evacuation plan. Project operation would be consistent with existing conditions.

b, c) Less-than-Significant Impact

Based on current mapping, the fire hazard potential of lands in the project area is mapped as having "high" fire hazard potential by the U.S. Department of Agriculture (2023) and not mapped as a fire risk according to the California Public Utilities Commission Fire-Threat Map (California Public Utilities Commission 2023). The project activities, including a bridge replacement, would not exacerbate fire risks nor result in ongoing impacts to the environment. Implementation of Conservation Measure #7 (Wildfire Potential), described in Section 2.5, will further reduce the potential for wildfire. The project's wildfire risk potential would be less than significant.

d) No Impact

The project profile would provide sufficient gradient for drainage of roadway surfaces, so the project would not expose people or structures to significant risks as a result in drainage changes, runoff, or slope instability.

Mitigation Measures

Conservation Measure #7 (Wildfire Potential), described in Section 2.5, will be used if necessary. No project-specific mitigation is required under this subject.

MANDATORY FINDINGS OF SIGNIFICANCE

XXI. MANDATORY FINDINGS OF SIGNIFICANCE (To be filled out by Lead Agency if required)	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		**X**		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			**X**	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		**X**		

Discussion of Impacts

a) Less than Significant with Mitigation Incorporated

As discussed in the preceding sections, the project has a potential to impact biological and cultural resources.

Special-status plant species that could be affected by the project are Colusa grass (*Neostapfia colusana*), Greene's tuctoria (*Tuctoria greenei*), hairy Orcutt grass (*Orcuttia pilosa*), Hoover's spurge (*Chamaesyce hooveri*), and succulent owl's clover (*Castilleja campestris* ssp. *succulenta*).

Special-status wildlife species that could be affected by the project are Crotch's bumble bee, vernal pool fairy shrimp, vernal pool tadpole shrimp, California tiger salamander, California red-legged frog, Western spadefoot, Western pond turtle, Blainville's horned lizard, Western burrowing owl, Swainson's hawk, white-tailed kite, loggerhead shrike, American badger, Pallid bat, Western red bat, and San Joaquin kit fox.

The project would also have minor impacts on wetlands and riverine habitat.

Potential impacts on resources and the specified species are discussed in detail in the corresponding sections above. Conservation and mitigation measures required to reduce the significance of project impacts are summarized in sections 5.7 and 5.8. With implementation of the required mitigation measures, potential impacts would be reduced to a less-than-significant impact.

The project would not significantly impact cultural resources CA-STA-389/H (P-50-000066) through the implementation of an ESA action plan. Although cultural resources are not likely to be affected, there is the potential for previously undetected cultural resources or human remains to be affected by project activities. Therefore, conservation measures (see section 5.7) have been incorporated into the project to ensure protection of any such resources in the event of inadvertent discovery. The project is consistent with the existing land uses, and the relevant plans and policies that govern such projects.

b) Less-than-Significant Impact

The project would include improvements to an existing transportation system by replacing an existing bridge structure with a new bridge. The project would not introduce new development into a previously undeveloped area. The project would mainly be constructed in the existing County ROW, with minor permanent takes of additional ROW to accommodate the bridge and approach roadway from the adjacent property. For the most part, impacts associated with the project would be limited to the construction phase and can be fully mitigated at the project level. As a result, cumulative impacts are considered to be less than significant.

c) Less than Significant with Mitigation Incorporated

The project could result in a variety of impacts on human beings during the construction phase. Potential adverse effects on nearby residential areas along Cooperstown Road are related to minor temporary increases in air quality, hazards and hazardous materials, temporary minor increases in noise levels during construction, and minor hazards related to vehicle use of the temporary detour. Conservation and mitigation measures, as described in the corresponding sections above, would be implemented to avoid or minimize potentially adverse effects to humans resulting during construction of the project. The project would not involve any actions that would have a substantial direct or indirect impact on the human environment that cannot be mitigated to a less-than-significant impact.

4. DETERMINATION

Based on this initial evaluation:

____ I find that the proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

X I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

____ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

____ I find that the proposed project MAY have a "Potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

____ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

6-5-2024

Chuck Covolo, P.E., Project Manager
Stanislaus County Public Works Department

Date

5. MITIGATION MONITORING AND REPORTING PROGRAM

This chapter presents the Mitigation Monitoring and Reporting Program (MMRP) for the Cooperstown Road over Rydberg Creek Bridge (No. 38C0257) Replacement Project (project). The purpose of this MMRP is to memorialize the mitigation responsibilities of the Stanislaus County Public Works Department (County) when implementing the project. The mitigation measures listed herein are required by laws or regulations and will be adopted by the County if the project is approved. Mitigation is defined by California Environmental Quality Act (CEQA) Section 15370 as a measure that:

- Avoids the impact altogether by not taking a certain action or parts of an action,
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation,
- Rectifies the impact by repairing, rehabilitating, or restoring the impacted environment,
- Reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project, or
- Compensates for the impacts by replacing or providing substitute resources or environments.

Mitigation measures provided in this MMRP have been identified in Chapter 3 (Environmental Setting, Impacts, and Mitigation Measures) of the Initial Study/Mitigated Negative Declaration (IS/MND) and are considered feasible and effective in mitigating project-related environmental impacts.

This MMRP includes the following: legal requirements, intent of the MMRP, development and approval process, authorities and responsibilities, ,resolution of noncompliance complaints; and a summary of conservation measures, mitigation measures, and monitoring requirements.

5.1 Legal Requirements

The legal basis for the development and implementation of the MMRP lies within CEQA, including the California Public Resources Code (PRC) sections 21002 and 21002.1, which state:

- Public agencies are not to approve projects as proposed if there are feasible alternatives or feasible mitigation measures available that would substantially lessen the significant environmental effects of such projects.
- Each public agency shall mitigate or avoid the significant effects on the environment of projects that it implements or approves whenever it is feasible to do so.

Section 21081.6 of the California PRC further requires that:

- The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation.
- The monitoring program must be adopted when a public agency makes its findings under CEQA so that the program can be made a condition of project approval in order to mitigate significant

effects on the environment. The program must be designed to ensure compliance with mitigation measures during project implementation to mitigate or avoid significant environmental effects.

5.2 Intent of the Mitigation Monitoring and Reporting Program

The MMRP is intended to satisfy the requirements of CEQA as they relate to the project. It will be used by County staff, participating agencies, project contractors, and mitigation monitoring personnel during implementation of the project. The primary objective of the MMRP is to ensure the effective implementation and enforcement of adopted mitigation measures and permit conditions. The MMRP will provide for monitoring of construction activities as needed, on-site identification and resolution of environmental problems, and proper reporting to lead agency staff.

5.3 Development and Approval Process

The timing elements for implementing mitigation measures and the definition of the approval process are provided in detail throughout this MMRP.

5.4 Authorities and Responsibilities

The County, functioning as the CEQA Lead Agency, will have the primary responsibility for overseeing the implementation of the MMRP and will be responsible for the following activities:

- Coordination of monitoring activities
- Reviewing and approving status reports
- Maintenance of records concerning the status of all approved mitigation measures

The County, as the implementing agency, will be responsible for implementing the mitigation measures by incorporating them into the project specifications (i.e., the contract documents) and enforcing the conditions of the contract in the field during construction. Some pre- and post-construction activities may be implemented directly by the County.

5.5 Resolution of Noncompliance Complaints

Any person or agency may file a complaint that alleges noncompliance with the mitigation measure(s) adopted as part of the approval process for the project. The complaint will be directed to the County's project manager in written form describing the purported violation in detail. The County will investigate and determine the validity of the complaint. If noncompliance with a mitigation measure is verified, the County will take the necessary action(s) to remedy the violation. Complaints will be responded to in writing, including descriptions of the County's investigation findings and the corrective action(s) taken, if applicable.

5.6 Summary of Monitoring Requirements

Following this discussion are the conservation measures, mitigation measures, and associated monitoring requirements for the project. Conservation measures include standard best management practices that will be used during construction. Mitigation measures are organized by environmental issue area.

- **Conservation Measures** describe the schedules of activities, prohibitions of practices, maintenance procedures, and structural or managerial practices that will be used either singly or in combination to prevent or reduce the release of pollutants, or otherwise minimize the potential for adverse effects on environmental resources. The same conservation numbering system used in the IS/MND is carried forward in this MMRP.
- **Mitigation Measure(s)** are those measure(s) identified for each potentially significant impact discussed in the IS/MND. The same mitigation numbering system used in the IS/MND is carried forward in this MMRP.
- **Timing/Implementation** indicates the point in time or project phase that the mitigation measure will be implemented.
- **Enforcement** indicates which agency or entity is responsible for enforcement of the mitigation measure(s).
- **Monitoring** indicates which agency or entity is responsible for implementing and monitoring each mitigation measure.
- **Verification** provides a space to be signed and dated by the individual responsible for verifying compliance with each mitigation measure.

5.7 Conservation Measures

The following conservation measures and BMPs will be followed during project construction to avoid or minimize potential environmental impacts:

CONSERVATION MEASURE #1: EROSION AND SEDIMENTATION CONTROL

Erosion control measures will be implemented during construction of the project. These measures will conform to the provisions in Section 21 of the Caltrans Standard Specifications and the special provisions included in the contract for the project. Such provisions include the preparation of a Storm Water Pollution Prevention Plan or Water Pollution Control Program depending on the size of the area of disturbance. These plans would describe and illustrate the use of best management practices to be implemented at the project site.

Erosion control measures to be included in the Storm Water Pollution Prevention Plan, Water Pollution Control Program, or to be implemented by the County include the following:

- To the extent practicable, activities that increase the erosion potential will be restricted to the relatively dry summer and early fall period to minimize the potential for rainfall events to transport sediment to surface water features. If these activities must take place during the late fall, winter, or spring, then temporary erosion and sediment control structures will be in place and operational at the end of each construction day and will be maintained until permanent erosion control structures are in place.
- Vegetation clearing and ground-disturbing activity will be limited to the minimum area necessary for project implementation.

- Areas where woody vegetation needs to be removed will be identified in advance of ground disturbance and will be limited to only those areas that have been approved by the County. Within 10 days of completion of construction in those areas, weed-free mulch will be applied to disturbed areas to reduce the potential for short-term erosion. Prior to a rain event, or when weather forecasts by the National Weather Service indicate a greater than 50 percent possibility of rain within the next 24 hours, weed-free mulch will be applied to all exposed areas at the completion of the day's activities. Soils will not be left exposed during the rainy season.

- Suitable structures, such as silt fences, straw wattles, or catch basins, will be placed below all construction activities at the edge of surface water features to intercept sediment before it reaches the waterway. These structures will be installed prior to any clearing or grading activities. Erosion control measures that employ monofilament netting will be prohibited within the work area.

- If spoil sites are used, they will be sited such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins will be constructed to intercept sediment before it reaches the feature. Spoil sites will be graded and vegetated to reduce the potential for erosion.

- Sediment control measures will be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until disturbed areas have been revegetated.

- All disturbed areas will be restored to preconstruction contours and revegetated, either through hydroseeding or other means, with native or approved non-invasive exotic species.

Completed (y/n)	Date	Initials	Notes (Optional)

CONSERVATION MEASURE #2: PREVENTION OF ACCIDENTAL SPILLS

Construction specifications will include the following measures to minimize the potential for adverse effects resulting from accidental spills of pollutants (e.g., fuel, oil, grease).

- A site-specific spill prevention plan would be completed and implemented for all potentially hazardous materials. This would include containment methods for any use of concrete or other hazardous materials according to Caltrans Standard Specifications Section 14-11.03. The plan would include the proper handling and storage of all potentially hazardous materials, including concrete, and the proper procedures for cleaning up and reporting any spills. If necessary, containment berms would be constructed to prevent spilled materials from reaching surface water features.

- Equipment and hazardous materials will be stored at least 50 feet away from all waterways.

- Vehicles and equipment used during construction will receive proper and timely maintenance to reduce the potential for mechanical breakdowns leading to a spill of materials. Maintenance and

fueling will be conducted in an area at least 50 feet away from waterways or within an adequate fueling containment area.

- For removal of the existing bridge, a debris containment and collection plan per Caltrans Standard Specifications section 14-11.13B (2) will be submitted. The plan must include shop drawings of containment systems complying with section 59-2.01C (2) and include the name and location of the disposal facility that will accept any hazardous wastes determined to be present.

Completed (y/n)	Date	Initials	Notes (Optional)

CONSERVATION MEASURE #3: PREVENTION OF SPREAD OF INVASIVE SPECIES

Construction specifications will include a requirement to prevent the spread of invasive plants in the work area. The contractor will implement the following measures.

- All equipment used for off-road construction activities will be weed-free prior to entering the project area.
- If project implementation calls for mulches or fill, they will be weed-free.
- Any seed mixes or other vegetative material used for revegetation of disturbed sites will consist of locally adapted native plant materials to the extent practicable.

Completed (y/n)	Date	Initials	Notes (Optional)

CONSERVATION MEASURE #4: GENERAL MEASURES FOR PROTECTION OF SPECIAL-STATUS WILDLIFE SPECIES

The County will implement the following general conservation measures to avoid or minimize the potential for adverse effects on special-status wildlife species:

- Prior to initiation of construction activities, workers will participate in environmental awareness training provided by a qualified biologist. The training will instruct workers: 1) how to identify special-status species, their various life forms, and their habitat components; 2) the potential for these species to be discovered and/or affected during construction activities; 3) how to identify sensitive habitats (e.g., wetlands, riparian); and 4) what to do if special-status species are encountered during construction activities.
- Construction access and equipment will be located on existing roads or previously disturbed parking areas.

- Vehicle speeds within off-road portions of the work area will not exceed 15 mph to avoid collisions with wildlife.
- Disturbance of soil, vegetation, naturally occurring debris piles (including fallen trees, woodrat nests, or dead tree snags), rocky outcrops, and existing burrows or crevices will be avoided or minimized to the extent possible.
- To the extent practicable, all holes or trenches will be covered at the end of each workday to prevent wildlife from becoming trapped. All holes and trenches will be inspected before each workday to facilitate the release of any trapped wildlife. A qualified biologist will be consulted if work crews are unable to safely assist in the release of trapped wildlife.
- To minimize attractants to wildlife, trash will be stored in containers that will be closed and latched or locked to prevent access by wildlife. All loose trash will be cleaned up daily.

Completed (y/n)	Date	Initials	Notes (Optional)

CONSERVATION MEASURE #5: HUMAN REMAINS

Surface surveys are not infallible, and buried resources may be overlooked. Implementation of the following conservation measures will avoid or minimize the potential for significant effects to newly discovered resources.

- If human remains are discovered during project activities, all activities near the find will be suspended and the Stanislaus County Sheriff–Coroner will be notified. If the coroner determines that the remains may be those of a Native American, the coroner will contact the Native American Heritage Commission (NAHC). Treatment of the remains will be conducted in accordance with the direction of the County Coroner and/or NAHC as appropriate.

Completed (y/n)	Date	Initials	Notes (Optional)

CONSERVATION MEASURE #6: GREENHOUSE GAS EMISSIONS

Construction contract documents include provisions to minimize project-related greenhouse gas (GHG) emissions. The following measures will be implemented to reduce construction-related GHG emissions.

- Reuse and recycle construction and demolition waste including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard.
- Check that the project enhances, and does not disrupt or create barriers to, non-motorized transportation (e.g., bicycles, pedestrians) through proper preconstruction planning.

- Protect existing trees to the extent possible and encourage the planting of new trees.

Completed (y/n)	Date	Initials	Notes (Optional)

CONSERVATION MEASURE #7: WILDFIRE POTENTIAL

Construction contract documents include measures to minimize project-related potential for wildfire ignition.

- Per the requirements of Public Resources Code Section 4442, the County will include a note on all construction plans that internal combustion engines will be equipped with an operational spark arrester, or the engine must be equipped for the prevention of fire.

Completed (y/n)	Date	Initials	Notes (Optional)

5.8 Mitigation Measures

This MMRP includes the following mitigation measures to be implemented during construction of the Cooperstown Road over Rydberg Creek Bridge (No. 38C0257) Replacement Project:

AIR QUALITY

Mitigation Measure AQ-1: Air Quality/Dust Control

In the construction bid documents, the County will include provisions that the contractor will implement a dust control program to limit fugitive dust emissions. The dust control program will include, but not be limited to, the following elements, as appropriate:

- The construction contractor will comply with San Joaquin Valley Air Pollution Control District Regulation VIII as it pertains to fugitive dust (i.e., particulate matter 10 microns or less).
- To control dust, water will be applied on all stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces (inactive construction sites) at least twice daily or until soils are sufficiently stable to prevent being carried away by winds.
- Water will be applied on disturbed open soil by means of pressure-type distributors or pipelines equipped with a spray system or hoses and nozzles that will provide an even distribution of water.
- All distribution equipment will be equipped with a positive means of shutoff.
- If reclaimed water is used, the sources and discharge must meet California Department of Health Services water reclamation criteria and the Central Valley Regional Water Quality Control Board

requirements. Non-potable water will not be conveyed in tanks or drain pipes that will be used to convey potable water, and there will be no connection between potable and non-potable water. Non-potable tanks, pipes and other conveyances will be marked “NON-POTABLE WATER – DO NOT DRINK.”

- Pursuant to California Vehicle Code, all trucks hauling soil and other loose material to and from the construction site will be covered or maintain at least 6 inches of freeboard (i.e., minimum vertical distance between the top of the load and the trailer).
- Any topsoil removed during construction will be stored on-site in piles no higher than four feet to allow development of microorganisms prior to replacing the soil in the construction area. The topsoil piles will be clearly marked and flagged. Topsoil piles that will not immediately be used in the construction area will be revegetated with a non-persistent erosion control mixture.
- Soil piles for backfill will be marked and flagged separately from native topsoil stockpiles. These soil piles will also be surrounded by silt fencing, straw wattles, or other sediment barriers or covered unless they are to be used immediately.
- All stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces will be watered by hand or with watering equipment, as necessary, to reduce airborne dust.
- All on-site unpaved roads and off-site unpaved access roads will be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities will be effectively controlled of fugitive dust emissions by water application or by presoaking.
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles will be effectively stabilized of fugitive dust emissions using sufficient water or chemical stabilizer/suppressant. Materials applied as temporary stabilizers will also provide wind erosion control benefits.
- If the project generates 150 or more vehicle trips per day, the construction contractor will prevent carryout and trackout.

Timing/Implementation: Prior to a construction/during construction/post construction
Enforcement: San Joaquin Valley Air Pollution Control District
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

BIOLOGICAL RESOURCES

Mitigation Measure BIO-1: Special-Status Plants

- A protocol-level botanical survey will be conducted in 2024 during the blooming periods for potential special-status plant species within the project study area (Colusa grass (*Neostapfia colusana*), Greene's tuctoria (*Tuctoria greenei*), hairy Orcutt grass (*Orcuttia pilosa*), Hoover's spurge (*Chamaesyce hooveri*), and succulent owl's clover (*Castilleja campestris* ssp. *succulenta*)). If no special-status plant species are observed, then no further mitigation is required. If any special-status plant species are located in the project study area, then the following measures will be implemented.

- Any topsoil removed during construction will be stored on-site in piles no higher than four feet to preserve the seed bank and allow development of microorganisms prior to replacing the soil in the construction area. The topsoil piles will be clearly marked and flagged. Topsoil piles that will not immediately be used in the construction area will be revegetated with a non-persistent erosion control mixture.

Timing/Implementation: Prior to a construction/during construction/post construction
Enforcement: U.S. Fish and Wildlife Fisheries Service, California Department of Fish and Wildlife, California Department of Transportation
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure BIO-2: Crotch's Bumble Bee

- A habitat assessment to identify potential foraging and nesting habitat and focused surveys will be conducted for Crotch's bumble bee within the project study area. Surveys should be conducted during flying season when the species is most likely to be detected aboveground, from March 1 to September 1. Survey results, including negative findings, will be submitted to California Department of Fish and Wildlife (CDFW) prior to implementing project-related ground-disturbing activities. At minimum, a survey report should provide the following: 1) a description and map of the survey area, focusing on areas that could provide suitable habitat for Crotch's bumble bee; 2) field survey conditions that include name(s) of qualified entomologist(s) and brief qualifications, date and time of survey, survey duration, general weather conditions, survey goals, and species searched; 3) map(s) showing the location of nests/colonies; and 4) a description of physical (e.g., soil, moisture, slope) and biological (e.g., plant composition) conditions where each nest/colony is found. A sufficient description of biological conditions, primarily impacted habitat, should include native plant composition (e.g., density, cover, and abundance) within impacted habitat (e.g., species list separated by vegetation class; density, cover, and abundance of each species). If no Crotch's bumble bees are observed, then no further mitigation is required. If the species is observed in the project study area and ground-disturbing activities will occur during the

overwintering period (October through February), then the following measures will be implemented.

- If adverse impacts to Crotch's bumble bee cannot be avoided either during Project activities or over the life of the project, the County should consult CDFW to determine appropriate avoidance and/or minimization measures for the species.

Timing/Implementation: Prior to and during construction
Enforcement: California Department of Fish and Wildlife, California Department of Transportation
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure BIO-3: Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

Stanislaus County will implement the following measures to minimize construction impacts on vernal pool fairy shrimp and vernal pool tadpole shrimp and their habitat:

- If wetland habitat is avoided (preserved) on-site, then a USFWS-approved biologist will inspect any construction-related activities at the project site to see that no unnecessary take of listed species or destruction of their habitat occurs. The biologist will have the authority to stop all activities that may result in such take or destruction until appropriate corrective measures have been completed. The biologist will also be required to immediately report any unauthorized wetland habitat impacts to USFWS and California Department of Fish and Wildlife (CDFW).
- If wetland habitat is directly impacted on-site, then the topsoil from the wetland will be removed and preserved on-site prior to any ground-disturbing activities. Stockpiles from each wetland will remain separate and identified in such a manner that the originating wetland is clear. During restoration activities, the wetland topsoil will be carefully replaced in the wetland from where it was originally removed.
- Adequate fencing will be placed and maintained around any avoided (preserved) wetland habitat to prevent impacts from vehicles.
- The County will prohibit activities that are inconsistent with the maintenance of the suitability of remaining habitat and associated on-site watershed. This includes, but is not limited to the following:
    - Alteration of existing topography or any other alteration or uses for any purposes, including the exploration for or development of mineral extraction.
    - Placement of any new structures on these parcels.
    - Dumping, burning, or burying rubbish, garbage, or any other wastes or fill materials.

- Building any new roads or trails not included in the project description.
- Killing, removing, altering, or replacing any existing native vegetation.
- Placement of stormwater drains.
- Fire protection activities not required to protect existing structures at the project site.
- Use of pesticides or other toxic chemicals.

- To compensate for the removal of vernal pool and seasonal wetland habitat that provides potential habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp, the County will preserve a minimum 0.807 vernal pool habitat within a CDFW- and USFWS-approved conservation area/mitigation bank, which is a 3:1 ratio for permanent impacts; or Stanislaus county would pay an in-lieu fee into a CDFW- and USFWS-approved fund. The actual number of acres impacted may change based on final project design.

  Timing/Implementation: Prior to a construction/during construction/post construction
  Enforcement: U.S. Fish and Wildlife Fisheries Service, California Department of Fish and Wildlife, California Department of Transportation
  Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure BIO-4: California Red-Legged Frog and California Tiger Salamander

In the unlikely event that a California red-legged frog or California tiger salamander enters the project area during construction, conservation measures incorporated into the project (i.e., Conservation Measure #1 (Erosion and Sedimentation Control), Conservation Measure #2 (Prevention of Accidental Spills), Air Quality/Dust Control, Conservation #3 (Prevention of Spread of Invasive Species), and Conservation Measure #4 (General Measures for Protection of Special-Status Wildlife Species) and project-specific mitigation measures described below would serve to avoid or minimize potential impacts on these two species.

- Ground-disturbing activities will be limited to daylight hours, and all clearing and grading activities in the action area will be restricted to the period of April 15 to October 15 in coordination with U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) and will be dependent on the level of rainfall and site conditions.
- A qualified biologist knowledgeable of California red-legged frog and California Tiger Salamander will provide a discussion of these two species during the worker environmental awareness training. The discussion will include how to identify the species, relevant life history and taxonomic information, where the species would be likely to occur in the action area, what to do if the species is observed, and the state and federal laws pertaining to the species.

- No plastic, monofilament, jute, or similar erosion control matting that could entangle California red-legged frog or California Tiger Salamander will be used in the project study area. Possible substitutions include coconut coir matting, tackified hydroseeding compounds, or other materials approved by USFWS.
- No pets or firearms will be permitted in the project study area.
- During all initial ground-disturbing activities, a USFWS-approved biologist will be present to recover and relocate any California red-legged frog or California Tiger Salamander that may be excavated by construction equipment from an underground refuge. If live California red-legged frog or California Tiger Salamander are encountered, construction in the vicinity will stop at the direction of the qualified biologist, and the qualified biologist will immediately relocate the California red-legged frog or California Tiger Salamander to a suitable burrow outside the work area. Consultation with USFWS will need to be re-initiated.
- During rain events and within 24 hours following rain events, a qualified biologist familiar with California red-legged frog and California Tiger Salamander will visually check for federally listed amphibian species, such as California red-legged frog and California Tiger Salamander, in and around equipment and vehicles prior to resuming work. In addition, construction personnel will keep vehicle speeds within the work area to a minimum to avoid wildlife.
- If federally listed and/or state-listed species are found during construction activities, a qualified biologist will immediately be notified. As warranted, the qualified biologist will notify the USFWS and/or CDFW about the species observed. All construction activities having the potential to injure or harass special-status species or habitat will be immediately stopped. The qualified biologist will evaluate the situation and will have authority to halt any construction activities until appropriate corrective measures have been implemented or it is determined that special-status species will not be harmed. The qualified biologist will remain in the area for the remainder of the workday to make sure the special-status species are not harmed. Any federally listed species encountered during construction activities will be allowed to move away from construction activities on their own. Capture and relocation are not permitted unless specifically approved in advance by USFWS and/or CDFW. Any dead or injured federally listed species or state listed will be immediately reported to the qualified biologist and the USFWS or CDFW, and consultation with USFWS and/or CDFW will need to be re-initiated.
- Stanislaus County will retain a qualified biologist familiar with California red-legged frog and California Tiger Salamander biology and habitat requirements to implement mitigation measures for the project. Stanislaus County will submit the name and credentials of the biologist(s) to USFWS and CDFW for review and approval at least 15 days prior to the onset of construction activities.
- Work areas that are temporarily disturbed will be revegetated with an assemblage of native vegetation suitable for the area.
- To compensate for the permanent removal of 0.441 acre and temporary disturbance of 2.01 acres of annual grassland habitat that provide upland refugia habitat for California tiger salamander, the County will preserve dispersal/refugia habitat within a CDFW- and USFWS-approved conservation area/mitigation bank at a minimum of 3.333 acres (2.01 acres [a 1:1 ratio]

for temporary impacts and 1.323 acres [a 3:1 ratio] for permanent impacts) or pay into a CDFW- and USFWS-approved in-lieu fee fund. The actual number of acres impacted may change based on final project design but will not exceed the acreage discussed above.

Timing/Implementation: Prior to a construction/during construction/post construction
Enforcement: U.S. Fish and Wildlife Fisheries Service, California Department of Fish and Wildlife, California Department of Transportation
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure BIO-5: Western Pond Turtle

The following measures will be implemented to avoid or minimize the potential for adverse impacts on Western pond turtle:

- Environmental Awareness Training. Construction personnel training would be conducted by a qualified biologist prior to onset of work to brief them on how to recognize Western pond turtle and other special-status animals (e.g., California red-legged frog and California tiger salamander) that may occur in the project study area.
- Western Pond Turtle Relocation. If Western pond turtles are encountered in the project study area during construction and could be harmed by construction activities, work will stop in the area, and the County will notify California Department of Fish and Wildlife (CDFW). Upon authorization from CDFW, a qualified biologist may relocate the individual(s) the shortest distance possible to a location containing suitable habitat outside of the work area.

Timing/Implementation: Prior to and during construction
Enforcement: California Department of Fish and Wildlife, California Department of Transportation
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure BIO-6: Western Burrowing Owl, Swainson's Hawk, White-Tailed Kite, Loggerhead Shrike

The following measures would be implemented to avoid or minimize the potential for significant impacts on Western burrowing owl, Swainson's hawk, white-tailed kite, and loggerhead shrike. If construction activities, including vegetation clearing, are conducted completely outside of the nesting season (i.e., after September 30 and before February 1), no further measures are necessary. If construction activities occur

during the nesting season (i.e., from February 1 to September 30), the following measures will be implemented:

- Because construction activities cannot avoid the breeding season for these bird species, Stanislaus County will retain a qualified biologist to conduct a preconstruction survey within the project study area and within an appropriate distance from the project site boundary, as access is available (e.g., 0.5 mile for Swainson's hawk, 250 feet for Western burrowing owls, and 500 feet for white-tailed kite and loggerhead shrike). The preconstruction survey will be performed between February 15th and September 15th, but no more than 10 days prior to the implementation of construction activities (including staging and equipment access).

- If active nests or burrows are found during the preconstruction survey, the County will coordinate additional protection measures with California Department of Fish and Wildlife (CDFW), such as establishment of a buffer around the nest tree or burrow (e.g., typically 0.5 mile for Swainson's hawk nests, 250 feet for active burrows of Western burrowing owls, 50 feet for shrike). No construction activity will be conducted within this zone during the nesting season (generally February through August) or until such time that the biologist determines that the nest or burrow is no longer active. The buffer zone will be marked with flagging, stakes, or other means to mark the boundary. All construction personnel will be notified of the existence of the buffer and will avoid entering the buffer during the nesting season.

- If occupied burrows of burrowing owl are identified in the project study area outside the nesting season (i.e., after September 30 and before February 1), a 150-foot no-disturbance buffer will be established around the burrow until the burrow is no longer occupied. Non-invasive techniques may be used to remove owls from the burrow in coordination with CDFW, if necessary, to proceed with construction.

- Information on nesting special-status and migratory birds will be provided during the worker environmental awareness training.

Timing/Implementation: Prior to and during construction
Enforcement: California Department of Fish and Wildlife, California Department of Transportation
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure BIO-7: San Joaquin Kit Fox

Although it is unlikely that San Joaquin kit fox would occupy habitat in the project study area, the following measures will be implemented to provide avoidance of possible impacts on the species:

- A U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW)-approved biologist will survey the project area (including a 200-foot buffer around proposed disturbance) for San Joaquin Kit Fox and potential dens within 30 days prior to start of

construction. Surveys will follow the recommendations in the *San Joaquin Kit Fox Survey Protocol for the Northern Range* (USFWS 1999).

- Construction will be stopped in the area where a trapped or injured San Joaquin Kit Fox is discovered until it leaves the area, and consultation with USFWS and CDFW will need to be re-initiated.
- San Joaquin Kit Fox are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored on the construction site overnight will be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe will not be moved until the kit fox has left on its own. If the kit fox remains in the pipe for more than one day, USFWS and CDFW will be contacted for guidance.
- No pets or firearms will be permitted in the project area.
- No rodenticides or herbicides will be used in the project area. This is necessary to prevent primary or secondary poisoning of San Joaquin Kit Fox and the depletion of prey populations on which they depend.
- A representative will be appointed by the County who will be the contact source for any employee or contractor who might inadvertently kill or injure a San Joaquin Kit Fox or who finds a dead, injured, or trapped San Joaquin Kit Fox. The representative will be identified during the employee education program, and their name and telephone number will be provided to the USFWS and CDFW. If necessary, consultation with USFWS and CDFW will be re-initiated.
- In the case of a trapped kit fox, escape ramps or structures should be installed immediately to allow the animal to escape, or the USFWS and CDFW should be contacted for guidance.
- Any contractor, employee, or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin Kit Fox will immediately report the incident to their representative. This representative will contact CDFW immediately in the case of a dead, injured, or entrapped San Joaquin Kit Fox. The USFWS Sacramento Office and CDFW will be notified in writing within three working days of the accidental death or injury to a San Joaquin Kit Fox during project-related activities. Notification must include the date, time, and location of the incident or the finding of a dead or injured animal and any other pertinent information.
- New sightings of San Joaquin Kit Fox will be reported to the California Natural Diversity Database.

Timing/Implementation:	Prior to a construction/during construction/post construction
Enforcement:	U.S. Fish and Wildlife Fisheries Service, California Department of Fish and Wildlife, California Department of Transportation
Monitoring:	County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure BIO-8: Special-Status Bats

The following measures would be implemented to avoid or minimize the potential for significant impacts on pallid bat and Western red bat:

- In coordination with the preconstruction nesting bird survey, a qualified biologist will conduct surveys of suitable roosting locations in and within 250 feet of the BSA to determine Western red bats or pallid bats are using them. If the biologist finds evidence of bat roosts, the biologist should attempt to determine which species are present, which features are being used, and for which roosting purpose. If it is determined that roosting bats are not present or are only using the area as a night roost (i.e., no young are present in the roost), no further avoidance and minimizations measures are necessary.
- If Western red bat or pallid bat day roost or maternity roosts are identified during the survey, the County will coordinate with California Department of Fish and Wildlife to determine the appropriate method to remove the roosting structure. Removal of the existing bridge may need to be scheduled before the birthing season for bats (i.e., prior to May 1) or after young bats are able to fly (i.e., after August 31). Removal of active roosts should be conducted in a manner that allows the bats the best opportunity to leave during darker hours to increase their chance of finding new roosts with minimum exposure to predation during daylight.
- Removal of the vegetation may need to be scheduled before the birthing season for bats (i.e., prior to May 1) or after young bats are able to fly (i.e., after August 31). Removal of active roosts should be conducted in a manner that allows the bats the best opportunity to leave during darker hours to increase their chance of finding new roosts with minimum exposure to predation during daylight.

Timing/Implementation: Prior to construction, during construction, and post construction
Enforcement: California Department of Fish and Wildlife, California Department of Transportation
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure BIO-9: American Badger

The following measures would be implemented to avoid or minimize the potential for significant impacts on American badger:

- In coordination with the preconstruction nesting bird survey, a qualified biologist will conduct a preconstruction survey for American badgers will be conducted no more than 10 days prior to construction to help ensure that no badgers are present within the construction area. If present, the County would coordinate with California Department of Fish and Wildlife and identify appropriate measures to avoid impacts during construction activities, such as using non-invasive techniques to encourage badgers to leave the area prior to ground disturbance.

  Timing/Implementation: Prior to construction and during construction
  Enforcement: California Department of Fish and Wildlife, California Department of Transportation
  Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure BIO-10: Migratory Birds and Raptors

The following measures will be implemented to avoid or minimize the potential for adverse impacts on nesting migratory birds and raptors:

- Vegetation Removal Prior to Nesting Season. If all necessary approvals have been obtained, potential nesting substrate (e.g., shrubs and trees) that would be removed by the project should be removed before the onset of the nesting season, which is February 1 through September 15, if practicable. This would help preclude nesting and substantially decrease the likelihood of direct impacts.

- Vegetation Removal During the Nesting Season. If vegetation removal and construction activities occur within nesting bird habitat between February 1 and September 30, a qualified biologist would conduct a preconstruction survey no more than 10 days before construction activities begin in that area. If a non-listed bird species nest is found, the buffer would be 250 feet; if a non-listed raptor nest is found, the buffer would be 500 feet—unless a smaller buffer is approved by California Department of Fish and Wildlife (CDFW). The biologist would monitor the nest to see that construction activity would not disturb the reproductive process and to determine when the young have fledged.

- To deter cliff swallows from nesting under the existing bridge, the County will install an exclusionary device (e.g., netting) around the bridge prior to the initiation of the avian breeding season (before February 15) during the same year as bridge work is proposed and after a qualified biologist has determined no nesting activity is present. The exclusionary device will remain in place until August 15 or until the bridge work begins. The exclusionary device will be anchored such that swallows cannot attach their nests to the structure through gaps. If swallows begin building nests on the structure after installation of the exclusionary device, the County will coordinate with CDFW and will remove the nesting material in the presence of a qualified biologist so that there is no destruction of an active nest. Bridge work may be delayed until the nests are no longer active.

Timing/Implementation: Prior to and during construction
Enforcement: California Department of Fish and Wildlife, California Department of Transportation
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure BIO-11: Waters of the U.S.

The following measures would be implemented to reduce construction-related impacts on waters of the U.S.:

- The County will comply with the terms of the Clean Water Act Section 404 permit issued by U.S. Army Corps of Engineers (USACE) and Section 401 water quality certification issued by the Central Valley Regional Water Quality Control Board (RWQCB) for activities involving the discharge of fill material in Rydberg Creek or wetlands. For activity in and along Rydberg Creek, the County will also comply with the terms of a Streambed Alteration Agreement with California Department of Fish and Wildlife (CDFW) (if determined necessary by CDFW) and the water quality certification from the Central Valley RWQCB. Prior to any discharge of dredged or fill material into wetlands and other waters located in the project study area, the required permits and authorizations will be obtained from the respective agencies. All terms and conditions of the required permits and authorizations will be implemented.

- All waters of the U.S. or State that are temporarily affected by project construction will be restored as close as practicable to their original contour and conditions within 10 days of the completion of construction activities.

- The County will design the roadway improvements to avoid direct and indirect impacts on the seasonal wetlands, to the greatest extent practicable, and designate all seasonal wetlands outside the area of permanent impact within the project study area as environmentally sensitive areas (refer to Figure 4 for wetland locations). These areas will be identified on construction drawings and demarcated in the field with flagging and signs identifying the area as off-limits to all personnel, equipment, and ground-disturbing activities. Exclusionary fencing will be installed around wetland features outside of impact areas. In addition, water quality best management practices will be installed around the wetlands (outside the wetland boundaries) in a manner that prevents water, sediment, and chemicals from draining into the features, and all staging, storage, stockpile areas, and off-road travel routes will be located as far as practicable away from the seasonal wetlands.

- Implementation of avoidance and minimization efforts described above would minimize potential adverse effects on seasonal wetlands. Based on the current design drawings, permanent impacts on the wetlands could occur The County will provide compensatory mitigation in coordination with USACE, USFWS, and CDFW, either through the purchase of mitigation credits from an approved mitigation bank of payment of in-lieu fees to the National Fish and Wildlife Foundation. The

specific mitigation ratio will be identified during the consultation process with USACE and will provide at least a 1:1 replacement ratio for impacts to wetlands.

Timing/Implementation: Prior to, during, and after construction
Enforcement: U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, Central Valley RWQCB, California Department of Fish and Wildlife
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

CULTURAL RESOURCES

Mitigation Measure CR-1: Cultural Resources

- Per Caltrans Exhibit 5.1 in Volume 2 of the Standard Environmental Reference, "it is Caltrans' policy to avoid cultural resources whenever possible. If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. Additional survey will be required if the undertaking changes to include areas not previously surveyed." Per Attachment 4 of the Section 106 Programmatic Agreement, isolated prehistoric or historic finds of fewer than three items per 100 square meters are properties exempt from evaluation.
- A Native American monitor will be present during all project ground disturbance.

Timing/Implementation: During construction
Enforcement: Native American Heritage Commission and County
Monitoring: County and/or its contractor and the Native American Heritage Commission

Completed (y/n)	Date	Initials	Notes (Optional)

GEOLOGY AND SOILS

Mitigation Measure GEO-1: Paleontological Resources

- If paleontological resources are discovered during project construction, all ground-disturbing activities within 50 feet of the discovery site will stop until a qualified paleontologist can assess the significance of the find and recommend appropriate treatment. If found to be significant and project activities cannot avoid the paleontological resources, a paleontological evaluation and monitoring plan will be implemented. Impacts to paleontological resources will be mitigated, which may include monitoring, data recovery and analysis, a final report, and the accession of all fossil

material to a paleontological repository. Upon completion of project ground-disturbing activities, a report documenting methods, findings, and recommendations will be prepared and submitted to the paleontological repository. Stanislaus County will be responsible for ensuring that recommendations regarding treatment are implemented.

Timing/Implementation: During construction
Enforcement: County
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

HAZARDS AND HAZARDOUS MATERIALS

HAZ-1: Asbestos-Containing Building Material

The County will include provisions in the construction bid documents for proper removal and disposal of asbestos-containing building material found on the existing bridge. The following measures will be implemented to reduce construction-related environmental impacts that could result from asbestos removal:

- Prior to the start of construction, the existing bridge's building material will be assessed for asbestos by a Certified Asbestos Consultant at least 10 business days prior to commencing work. If present, asbestos-containing building material will be removed using one of several methods approved by the Federal Environmental Protection Agency and California Occupational and Safety Hazard Administration (Cal OSHA), at the contractor's discretion. Acceptable methods include wet scraping or the use of a dustless needle gun connected to a vacuum unit with a HEPA (high-efficiency particulate air) filter that empties directly into a waste container. The waste container will be properly documented and disposed of at a Class I landfill, such as the Clean Harbors Buttonwillow, LLC, facility in Buttonwillow, California (CAD980675276) or the Chemical Waste Management, Inc., Kettleman facility in Kettleman, California (CAT000646117).

Timing/Implementation: During construction
Enforcement: County, San Joaquin Valley Unified Air Pollution Control District, Federal Environmental Protection Agency, Cal OSHA
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

6. REPORT PREPARATION

6.1 Stanislaus County Public works Department CEQA Lead Agency

Chuck Covolo, PE	Project Manager

6.2 Consor Engineers

Brent Lemon, P.E.	Principal Engineer
Scott McCauley, PE	Project Manager/Project Engineer

6.3 Stantec Consulting Services Inc. Environmental Compliance Subconsultants

Wirt Lanning	Program Manager/Project Manager
Connie MacGregor	Environmental Analyst / Environmental Scientist
Chariss Femino	Biologist
Sarah Tona	Botanist
Teri Mooney	GIS Analyst
Sylvia Langford	Editor, Document Accessibility Specialist

6.4 Avila and Associates Consulting Engineers, Inc. Hydraulic Engineering Subconsultant

Catherine M.C. Avila, P.E.	Principal Engineer

6.5 Pacific Legacy, Inc. Cultural Resources Subconsultant

Amy Kovak, M.A.	Prehistoric Archaeologist/Principal Investigator
Annmarie Medin, M.A.	Prehistoric Archaeologist/Principal Investigator

6.6 Crawford & Associates, Inc. Initial Site Assessment Subconsultant

Ellen Pyatt	Project Geologist
Thomas E. Ballard, P.G., C.H.G.	Principal Hydrogeologist

7. REFERENCES

Allen, V.T. 1929. The Ione Formation of California: University of California, Publications in Geological Sciences, v. 18, no. 14, p. 347-448.

Avila & Associates. 2020. Design Hydraulic Study for Rydberg Creek Bridge at Cooperstown Road, Bridge No. 38C-0257, Stanislaus County, California. October 13, 2020.

Bartow, J.A. 1992. Contact relations of the Ione and Valley Springs Formations in the east-central Great Valley, California. U.S Geologic Survey, Open-File Report 92-588.

DOC (California Department of Conservation). 2012. State of California Williamson Act contract land, data submissions for Stanislaus County. State of California, The Natural Resources Agency, Department of Conservation, Sacramento, California.

DOC (California Department of Conservation). 2021. California important farmland finder. Available at https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed June 20, 2022.

California Department of Toxic Substances Control. 2023. DTSC's hazardous waste and substances site list – site cleanup (Cortese list). Available at https://dtsc.ca.gov/dtscs-cortese-list/. Accessed September 12, 2023).

California Geological Survey. 2012. Alquist-Priolo Earthquake Fault Zones. Available online at https://www.conservation.ca.gov/cgs/alquist-priolo. Accessed September 17, 2021.

California Geological Survey. 2016. Map Sheet 48 (Revised 2016): Earthquake shaking potential for California. Available at CGS Map Sheet 48: Earthquake Shaking Potential for California (revised 2016). California Department of Conservation: Open Data and Map Access CNRA. Accessed February 17, 2021.

California Public Utilities Commission (CPUC). 2023. CPUC fire threat district map. Available at https://ia.cpuc.ca.gov/firemap/. Accessed September 11, 2023.

Caltrans (California Department of Transportation). 2022. California state scenic highways. Available at https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed June 20, 2022.

CARB (California Air Resources Board). 2021a. Maps of state and federal area designations. Available at https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations. Accessed February 12, 2021.

CARB (California Air Resources Board). 2021b. Ambient Air Quality Standards. Available at https://ww2.arb.ca.gov/resources/documents/ambient-air-quality-standards-0. Accessed February 12, 2021.

Central Valley RWQCB (Regional Water Quality Control Board). 2019. Water Quality Control Plan for the Central Valley Region. Available at https:// https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf. Accessed September 28, 2023.

Crawford & Associates, Inc., and Taber. 2020. Draft Foundation Report for Cooperstown Road Bridge at Rydberg Creek, Existing Bridge No. 38C-0257, FHWA # BRLO-5938(194), Stanislaus County, California. May 12, 2020.

EPA (Federal Environmental Protection Agency). 2022. Non-attainment Areas for Criteria Pollutants. Available online at http://www.epa.gov/environmental-topics/air-topics. Accessed November 10, 2022.

Federal Highway Administration. 2011. Construction noise handbook. FHWA-HEP-06-015-DOT-VNTSC-FHWA-06-02 NTIS No. PB2006-109102. U.S. Department of Transportation. Office of Natural and Human Environment. Washington D.C. Updated August 24, 2017. Available at https://www.fhwa.dot.gov/ENVIRonment/noise/construction_noise/handbook/handbook09.cfm. Accessed September 12, 2023.

Federal Transit Administration. 2006. Transit noise and vibration impact assessment. FTA-VA-90-1003-06. U.S. Department of Transportation. Office of Planning and Environment. Washington, DC. Available at https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf . Accessed September 12, 2023.

FEMA (Federal Emergency Management Agency). 2008. Flood insurance rate map, Stanislaus County, California and incorporated areas, panel number 0450E. Available online at https://msc.fema.gov/portal/home. Accessed September 19, 2023.

Governor's Office of Planning and Research. 2008. Technical advisory: CEQA and climate change: Addressing climate change through California Environmental Quality Act Review. Sacramento, CA. Available online at http://opr.ca.gov/docs/june08-ceqa.pdf. Prepared June 19, 2008. Accessed June 20, 2022.

Governor's Office of Planning and Research. 2018. Discussion Draft: CEQA and Climate Change Advisory. Sacramento, CA. Available at http://opr.ca.gov/docs/20181228-Discussion_Draft_Climate_Change_Adivsory.pdf. Accessed June 20, 2022.

Marchand, D.E., Bartow, J.A., and Shipley, Susan. 1981. Preliminary geologic maps showing Cenozoic deposits of the Cooperstown and La Grange quadrangles, Stanislaus and Tuolumne Counties, California: U.S. Geological Survey, Open-File Report OF-81-1049, scale 1:24,000.

Mayer, K. E., and W. F. Baudelaire Jr., eds. 1988. *A guide to wildlife habitats of California*. California Department of Forestry and Fire Protection. Sacramento, California.

Natural Resources Conservation Service. 2023. Web Soil Survey. Custom soil resource report for Stanislaus County, California. Available online at http://websoilsurvey.nrcs.usda.gov/. Accessed September 11, 2023.

North State Resources, Inc. 2014. Rydberg Creek Bridge (38C0257) on Cooperstown Road Replacement Project, Water Quality Technical Memorandum. Sacramento, California.

North State Resources, Inc. 2016. Rydberg Creek Bridge (38C0257) on Cooperstown Road Replacement Project, Stanislaus County, California. Archaeological Survey Report. Sacramento, California.

Pacific Legacy, Inc. 2020. Archaeological Evaluation Report for the Rydberg Creek Bridge (38C0257) on Cooperstown Road Replacement Project, Archeological Site CA-STA-389/H, Stanislaus County, California, Federal Aid No.: BRLO 5938(194). El Dorado Hills, California.

Pacific Legacy, Inc. 2021. Historical Resources Evaluation Report of CA-STA-390H for the Rydberg Creek Bridge (38C0257) on Cooperstown Road Replacement Project, Stanislaus County, California, Federal Aid No.: BRLO 5938(194). Sacramento, California. El Dorado Hills, California.

Pacific Legacy, Inc. 2023a. Finding of No Adverse Effect (Without Standard Conditions) for the Rydberg Creek Bridge (38C0257) on Cooperstown Road Replacement Project, Stanislaus County, California. El Dorado Hills, California.

Pacific Legacy, Inc. 2023b. Environmentally Sensitive Area Action Plan for the Rydberg Creek Bridge (38C0257) on Cooperstown Road Replacement Project. Stanislaus County, California. El Dorado Hills, California.

Quincy Engineering. 2013. Rydberg Creek Bridge (Br. No. 38C0257 on Cooperstown Road Visual Impact Assessment Technical Memo. Rancho Cordova, California.

SJVAPCD (San Joaquin Valley Air Pollution Control District). 2022a. Ambient Air Quality Standards & Valley Attainment Status. Available online at http://www.valleyair.org/aqinfo/attainment.htm. Accessed November 21, 2022.

SJVAPCD (San Joaquin Valley Air Pollution Control District). 2022b. Guide for Assessing and Mitigating Air Quality Impacts. Available online at http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI%20Jan%202002%20Rev.pdf. Accessed November 21, 2022.

SMAQMD (Sacramento Metropolitan Air Quality Management District). 2018. Roadway Construction Emissions Model, Version 9.0.0. Available online at www.airquality.org/residents/ceqa-land-use-planning/ceqa-guidance-tools. Accessed September 13, 2023.

Stanislaus County. 2015. Stanislaus County General Plan 2015. Available at https://www.stancounty.com/planning/pl/gp/current/gp-introduction.pdf. Accessed June 21, 2022.

Stantec (Stantec Consulting Services Inc.). 2020a. Delineation of Potential Waters of the United States for the Rydberg Creek Bridge (38C0257) on Cooperstown Road Replacement Project. Stanislaus County, California.

Stantec (Stantec Consulting Services Inc.). 2020b. Natural Environment Study for the Rydberg Creek Bridge (38C0257) on Cooperstown Road Replacement Project. Stanislaus County, California.

Stantec (Stantec Consulting Services Inc.). 2021. Biological Assessment for the Rydberg Creek Bridge (38C0257) on Cooperstown Road Replacement Project. Stanislaus County, California.

Stantec (Stantec Consulting Services Inc.). 2022. Rydberg Creek Bridge (38C0257) on Cooperstown Road Replacement Project Community/Land Use and Utility Impacts Memorandum. Stanislaus County, California.

SWRCB (State Water Resource Control Board). 2012. Final 2012 California Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report). California Environmental Protection Agency. Available at https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2012.shtml. Accessed September 21, 2023.

SWRCB (State Water Resource Control Board). 2023. Geotracker. Available at https://geotracker.waterboards.ca.gov/ (accessed September 12, 2023).

Taber. 2014. Initial Site Assessment, Cooperstown Road Bridge Across Rydberg Creek Replacement Project, Existing Bridge No. 38C0257, Stanislaus County, California. October 3, 2014.

U.S. Department of Agriculture. 2023. Wildfire Hazard Potential. Rocky Mountain Research Station. Available at https://www.fs.usda.gov/rmrs/keywords/wildfire-hazard-potential. Accessed September 12, 2023.

USFWS (U.S. Fish and Wildlife Service). 1999. San Joaquin Kit Fox Survey Protocol for the Northern Range. Available at Kitfox northern range survey protocol.pdf (fws.gov). June 1999.

USGS (U.S. Geological Survey). 2021. Quaternary fault and fold database for the United States. Bureau of Mines and Mineral Resources. Available at https://www.usgs.gov/natural-hazards/earthquake-hazards/faults. Accessed September 22, 2023.